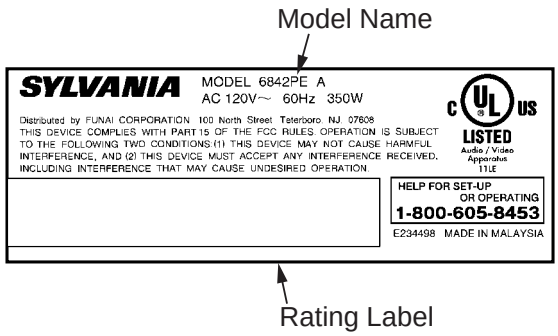
SYLVANIA

SERVICE MANUAL

Main Section
- Specifications
- Adjustment Procedures
- Troubleshooting
- Schematic Diagrams
- CBA's
- Exploded Views
- Parts List

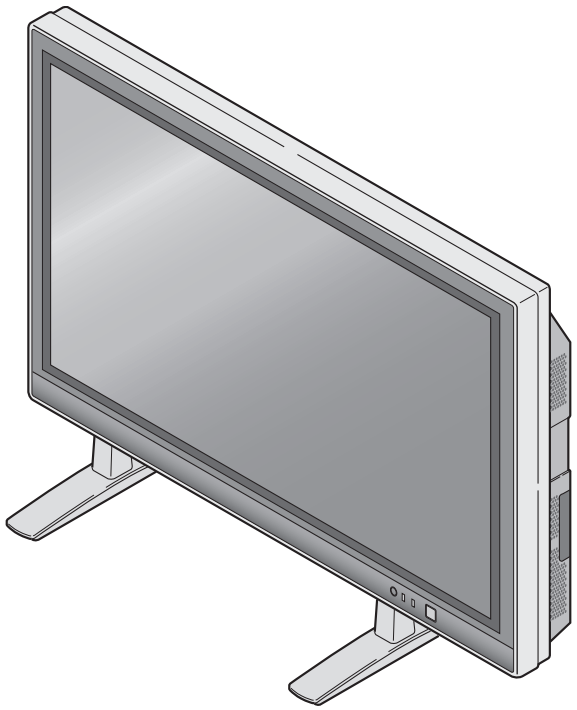
Plasma Display Module Section
- Disassembly Procedures
- Troubleshooting
- Exploded Views
- Parts List

Model 6842PE has both an "A" version and a non "A" version. This manual applies to the "A" version of Model 6842PE, called 6842PE A on the rating label, as shown right.


Model Name
SYLVANIA
MODEL 6842PE A
AC 120V~ 60Hz 350W
Distributed by FUNAI CORPORATION 100 North Street Teterboro NJ 07608
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
c UL us
LISTED
Audio / Video Apparatus
HELP FOR SET-UP OR OPERATING
1-800-605-8453
E234498 MADE IN MALAYSIA
Rating Label

PLASMA DISPLAY

6842PE
("A" version)



IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Funai Equipment. The service procedures recommended by Funai and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Funai could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Funai has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Funai must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

MAIN SECTION

PLASMA DISPLAY

6842PE
("A" version)

Main Section
- **Specifications**
- **Adjustment Procedures**
- **Troubleshooting**
- **Schematic Diagrams**
- **CBA's**
- **Exploded Views**
- **Parts List**

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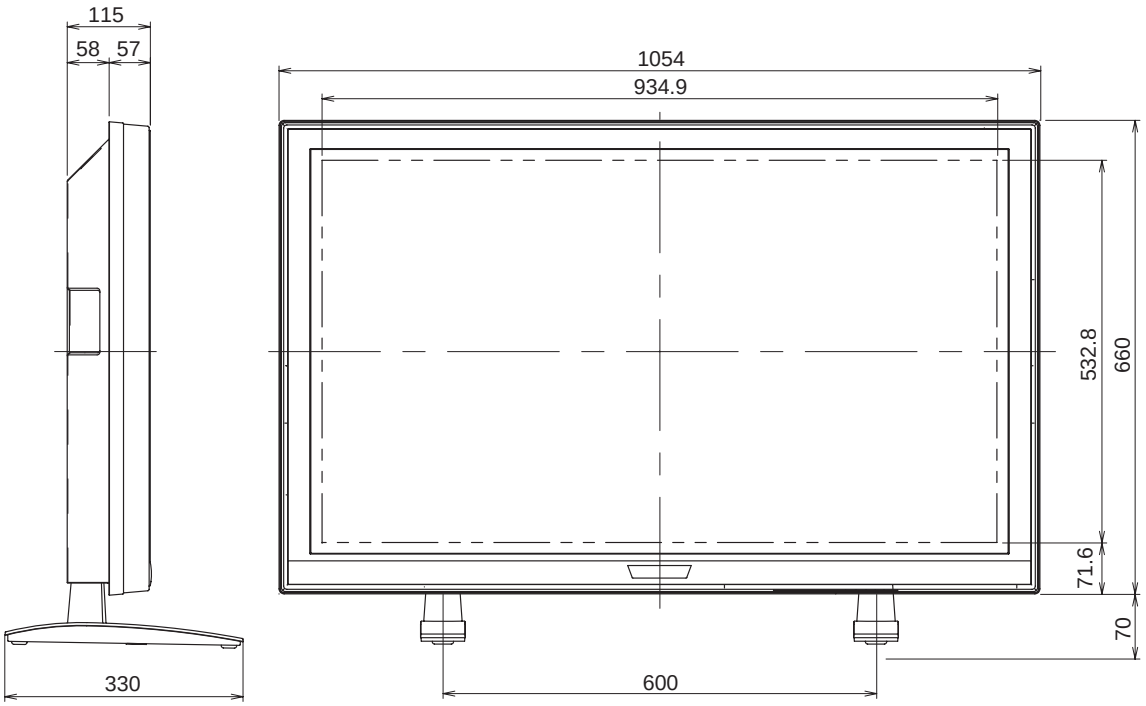
SPECIFICATIONS

Description	Condition
Display Features	
Screen Size	998 (W) x 591 (H) x 1074 (D) mm, 42 in. Wide VGA panel
Pixel Resolution	852 (H) x 480 (V)
Output Colors	16.7 million
Screen Aspect Ratio	16:9
Contrast Ratio	1000:1
Brightness	400 cd/m^2 (PEAK)
Comb Filter Type	3-Dimensional Y/C Separation
Available Input Format	720p/1080i/480p/480i (720p/1080i/480p: Component 2 only)
Audio Features	
Sound Output	5W + 5W, 10% THD
Speaker	2.8 in x 1.6 in Oval Type x 2
Audio IN	0.5Vrms
Connectors	
Component AV Input (1)	SD component video/Y, Cb, Cr, (RCA x 3) - rear audio L/R (RCA x 2) - rear Y: 1.0Vp-p (75 Ohm), Cb/Cr: 0.7Vp-p (75 Ohm)
Component AV Input (2)	HD component video/Y, Pb, Pr, (RCA x 3) - rear audio L/R (RCA x 2) - rear Y: 1.0Vp-p (75 Ohm), Pb/Pr: 0.7Vp-p (75 Ohm)
Composite AV Input (1) S-Video (1)	Composite video (RCA x 1) - rear, 1.0Vp-p (75 Ohm) S-Video (4 pin DIN) - rear audio L/R (RCA x 2) - rear Y: 1.0Vp-p (75 Ohm), C: 0.286Vp-p (75 Ohm)
Composite AV Input (2) S-Video (2)	Composite video (RCA x 1) - side, 1.0Vp-p (75 Ohm) S-Video (4 pin DIN) - side audio L/R (RCA x 2) - side Y: 1.0Vp-p (75 Ohm), C: 0.286Vp-p (75 Ohm)
Analog Audio output	audio L/R (RCA x 2) - rear
General	
Power In	120V ±10%, 60Hz/AC
Power Consumption	350 W (standby-condition 0.8W)
Operation Temperature	41F - 104F (5°C - 40°C)
Humidity	Under 80%
Dimension	1054 (W) x 660 (H) x 115 (D) mm 1054 (W) x 730 (H) x 330 (D) mm (Incl. Stand)
Weight	94.8 lbs (43 kg)

Note:
Nominal specifications represent the design specifications. All units should be able to approximate these. Some will exceed and some may drop slightly below these specifications. Limit specifications represent the absolute worst condition that still might be considered acceptable. In no case should a unit fail to meet limit specifications.

DIMENSIONS



IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, our products are strictly inspected for recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Safety Precautions for Monitor Circuit

1. **Before returning an instrument to the customer,** always make a safety check of the entire instrument, including, but not limited to, the following items:

a. Be sure that no built-in protective devices are defective and have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) excessively wide cabinet ventilation slots, and (2) an improperly fitted and/or incorrectly secured cabinet back cover.

c. **Leakage Current Cold Check -** With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each exposed metallic cabinet part. If the measured resistance is less than 1.0 megohm or greater than 5.2 megohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.

d. **Leakage Current Hot Check -** With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances. With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.75 milli-ampere. Reverse the instrument power cord plug in the outlet and repeat the test.

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

2. Read and comply with all caution and safety-related notes on or inside the cabinet, or on the chassis,

3. **Design Alteration Warning -** Do not alter or add to the mechanical or electrical design of this monitor. Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.

4. **Hot Chassis Warning -**

a. Some monitor chassis are electrically connected directly to one conductor of the AC power cord and maybe safety-serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter, measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground.

b. Some monitor chassis normally have 85V AC(RMS) between chassis and earth ground regardless of the AC plug polarity. This chassis can be safety-serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection.

c. Some monitor chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulation material that must not be defeated or altered.

5. Observe original lead dress. Take extra care to assure correct lead dress in the following areas:a. near sharp edges,b. near thermally hot parts-be sure that leads and components do not touch thermally hot parts,c. the AC supply,d. high voltage, and,e. antenna wiring. Always inspect in all areas for pinched, out of place, or frayed wiring. Check AC power cord for damage.

6. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

7 Product Safety Notice - Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc.. Parts that have special safety characteristics are identified by a (⚠) on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The product's safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are strictly inspected to confirm they comply with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

General Caution of Plasma Display

1. Since the Panel module and front filter are made of glass, sufficient care shall be taken when handling the broken module and filter in order to avoid injury.

2. If necessary to replace Panel module, this work must be started after the panel module and the AC/DC Power supply becomes sufficiently cool.

3. Special care must be taken with the display area to avoid damaging its surface.

4. The Panel Module shall not be touched with bare hands to protect its surface from stains.

5. It is recommended to use clean soft gloves during the replacing work of the Panel module in order to protect, not only the display area of the panel module but also the serviceman.

6. The Chip Tube of the panel module (located upper left of the back of the panel module) and flexible cables connecting Panel glasses to the drive circuitry Printed Wiring Boards (P.W.B.) are very weak, so sufficient care must be taken to prevent breaking or cutting any of these. If the Chip Tube breaks the panel module will never work, replacement for a new plasma panel module will be needed.

7. Signal, power supply P.W.B.'s and PDP driving circuits P.W.B.'s are assembled on the rear side of the PDP module, take special care with this fragile circuitry; particularly, Flexible Printed Circuits bonded to surrounding edges of the glass panel. They are not strong enough to withstand harsh outer mechanical forces. Avoid touching the flexible printed circuits by not only your hands, but also tools, chassis, or any other object. Extreme bending of the connectors must be avoided too. In case the flexible printed circuits are damaged, the corresponding addressed portions of the screen will not be lit and exchange of a glass panel will be required.

PDP Module Handling

When there is need to replace a broken PDP module which is the displaying device from the Plasma display unit, consider the following:

1. When carrying the PDP module, two persons should stand at both shorter-edge sides of the glass-panel and transport it with their palms. Avoid touching the Flexible Printed Circuits or the chip tube on the corner of the glass-panel. Handle only by the surface of the glass panel.
2. When carrying PDP module, watch surrounding objects, such as tables, and also do not carry it alone since it may be dangerous and it will be damaged due to excessive stress to the module (glass-panel).
3. Please do not stand the module with the edge of the glass-panel on the table since this might result in damage to the glass-panel and/or flexible printed circuits due to excessive stress to the module (glass-panel).

Precautions during Servicing

A. Parts identified by the (⚠) symbol are critical for safety.
Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.

Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:

1) Wires covered with PVC tubing
2) Double insulated wires
3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:

1) Insulation Tape
2) PVC tubing
3) Spacers
4) Insulators for transistors.

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

G. Check that replaced wires do not contact sharp edged or pointed parts.

H. Also check areas surrounding repaired locations.

I. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

J. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC supply outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1 : Ratings for selected area

AC Line Voltage	Region	Clearance Distance (d) (d')
110 to 130 V	USA or CANADA	≥ 3.2 mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

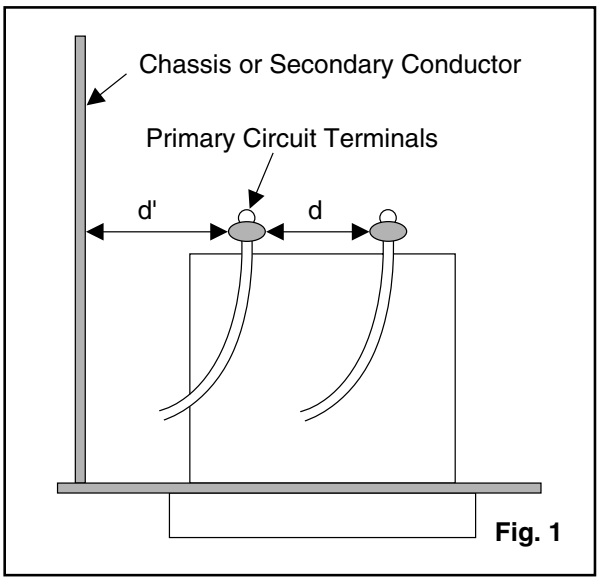


Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (any two parts or contacts, between any part or contact and either pole of the power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method: (Power ON)

Insert load Z between B (any two parts or contacts, between any part or contact and either pole of the power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig. 2 and following table.

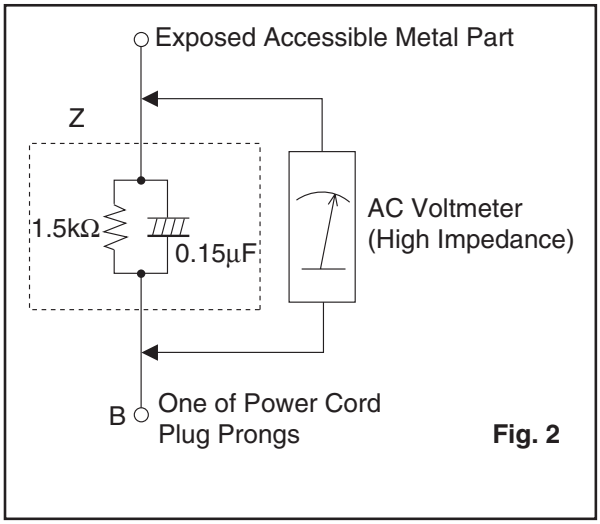


Fig. 2

Table 2: Leakage current ratings for selected areas

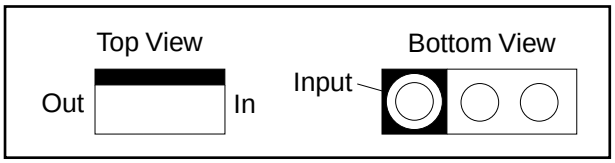
AC Line Voltage	Region	Load Z	Leakage Current (i)	Earth Ground (B) to:
110 to 130 V	USA	0.15µF CAP. & 1.5kΩ RES. connected in parallel	i≤0.75mA peaks	Exposed accessible parts

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

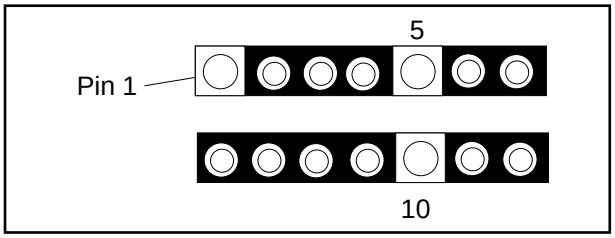
STANDARD NOTES FOR SERVICING

Circuit Board Indications

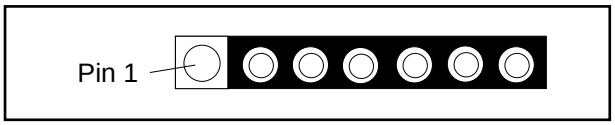
a. The output pin of the 3 pin Regulator ICs is indicated as shown.



b. For other ICs, pin 1 and every fifth pin are indicated as shown.

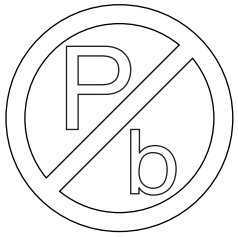


c. The 1st pin of every male connector is indicated as shown.



Pb (Lead) Free Solder

Pb free mark will be found on PCBs which use Pb free solder. (Refer to figure.) For PCBs with Pb free mark, be sure to use Pb free solder. For PCBs without Pb free mark, use standard solder.



Pb free mark

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

(1) Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

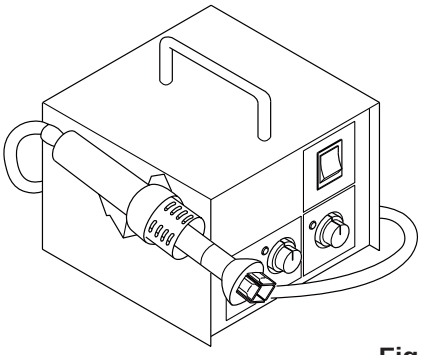


Fig. S-1-1

(2) Remove the flat pack-IC with tweezers while applying the hot air.

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Caution:

1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)

3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

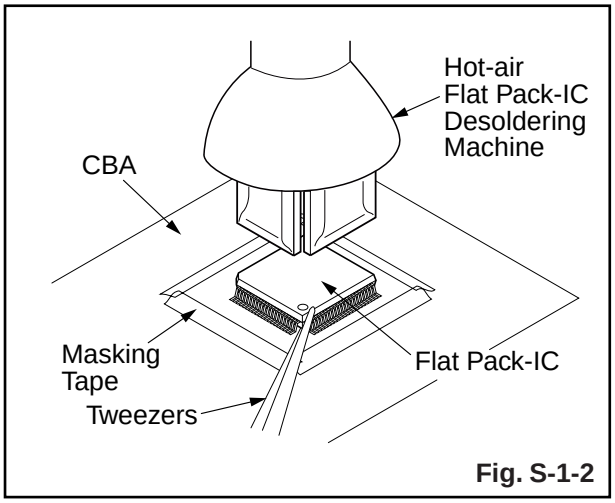


Fig. S-1-2

With Soldering Iron:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

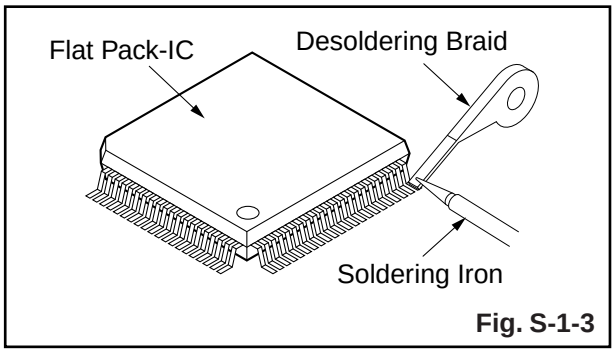


Fig. S-1-3

(2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine.(Fig. S-1-4)

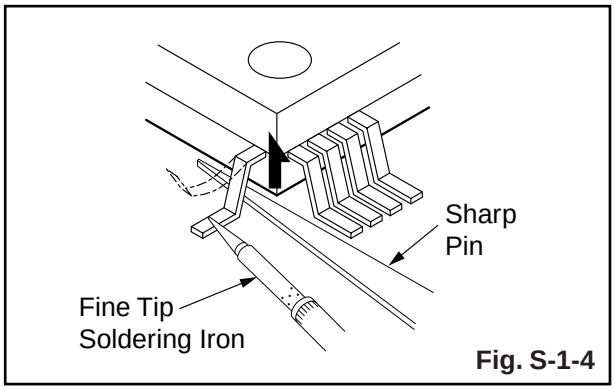


Fig. S-1-4

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

(2) Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.

(3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.

(4) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(5) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note:

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

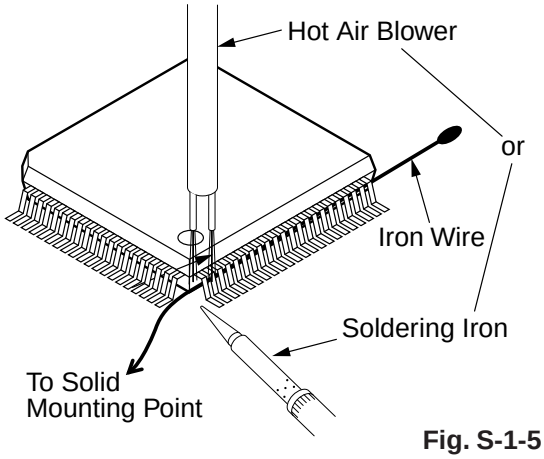


Fig. S-1-5

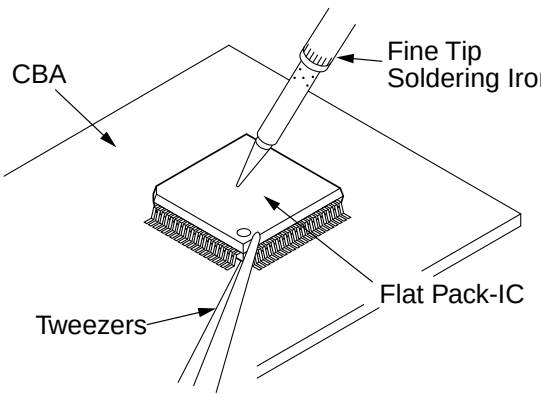


Fig. S-1-6

2. Installation

(1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.

(2) The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then pre- solder the four corners of the flat pack-IC. (See Fig. S-1-8.)

(3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

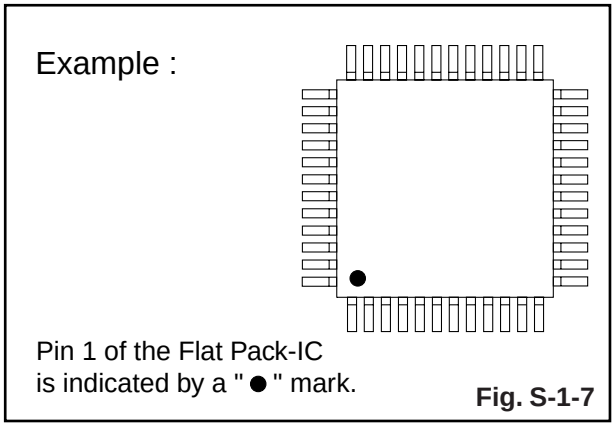


Fig. S-1-7

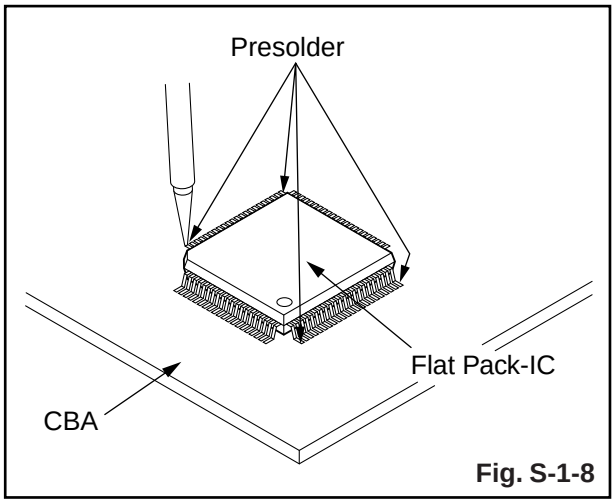


Fig. S-1-8

Instructions for Handling Semiconductors

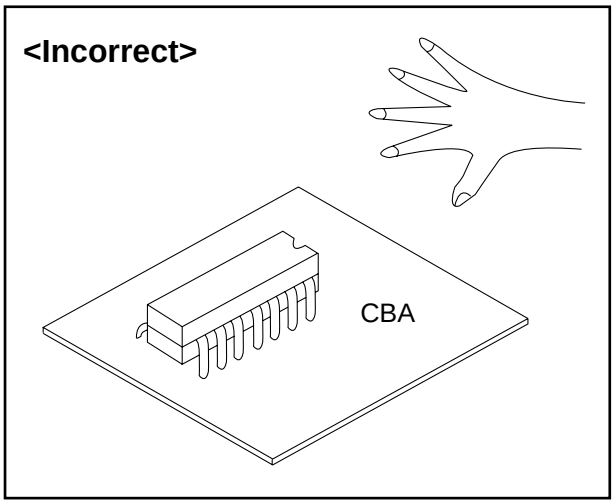
Electrostatic breakdown of the semiconductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

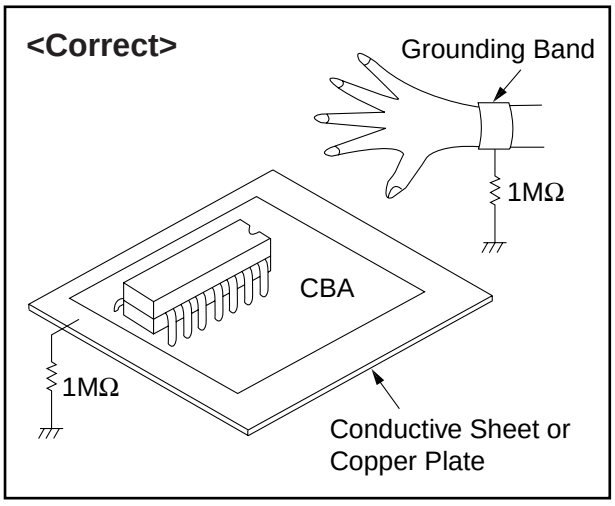
1. Ground for Human Body

Be sure to wear a grounding band (1MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1MΩ) on the workbench or other surface, where the semiconductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semiconductors with your clothing.



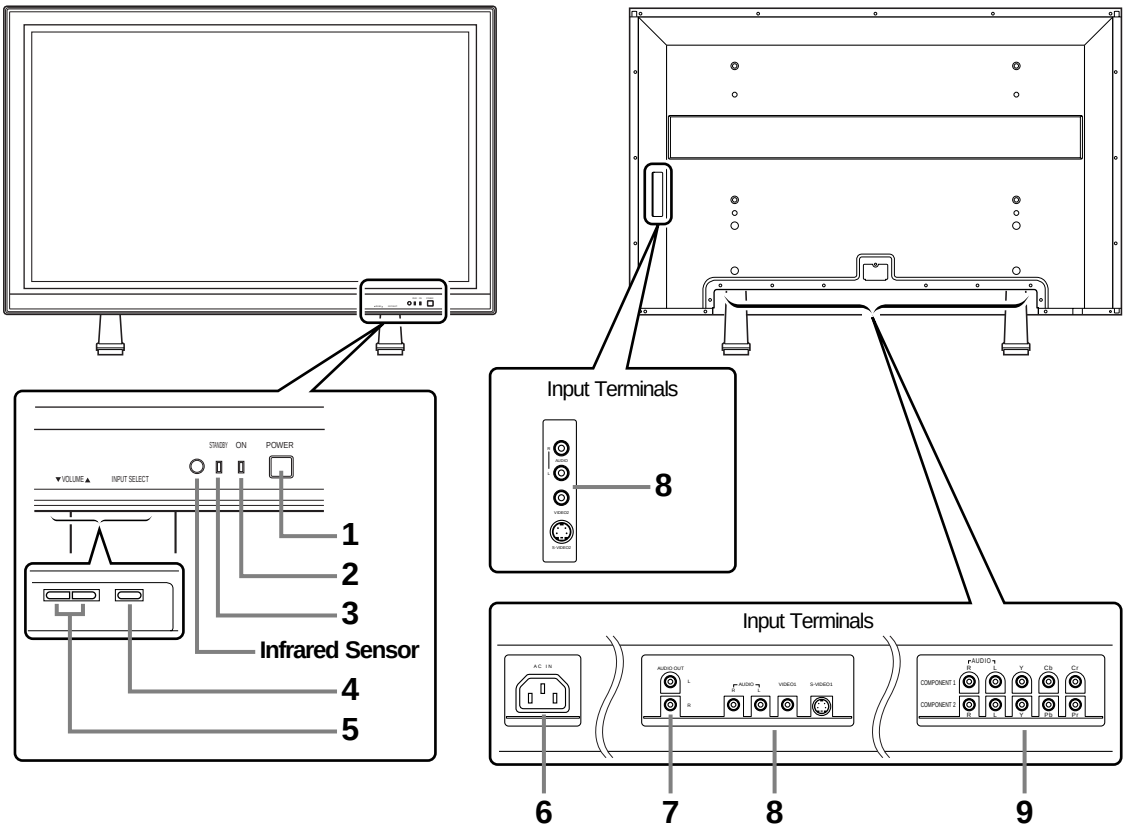


BASIC SETUP AND OPERATING GUIDE

MAIN UNIT

Front

Rear



1 **POWER button:** Turns the power ON or in STANDBY.

2 **ON indicator:** Lights up when the power is ON.

3 **STANDBY indicator:** Lights up when the power is in the standby mode. Disappears when the power is ON.

4 **INPUT SELECT button:** Selects input terminals.

5 **VOLUME ▲(up) / ▼(down) button:** Increases or decreases the volume.

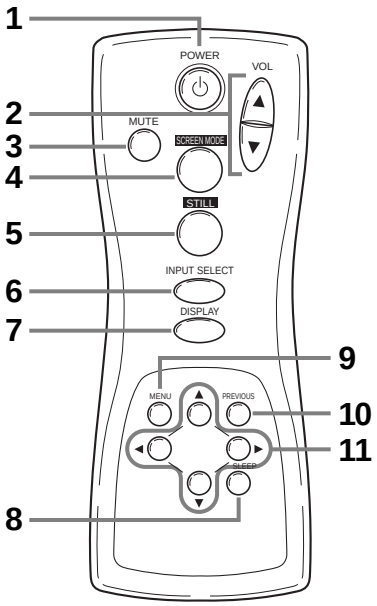
6 **AC IN terminal:** Connect the supplied power cable for a standard AC outlet.

7 **AUDIO OUT:** Output terminals for audio.

8 **AUDIO/VIDEO/S-VIDEO:** Input terminals for an audio and video signal. You can select either VIDEO or S-VIDEO.

9 **COMPONENT:** Input terminals for a component signal. You can make a Y-Cb-Cr interlaced connection to component 1 or Y-Pb-Pr progressive or interlaced connection to component 2.

REMOTE CONTROL



1 **POWER button:** Turns the main power ON or in STANDBY.

2 **VOL ▲(up) / ▼(down) button:** Increases or decreases the volume.

3 **MUTE button:** Turns the audio off or on.

4 **SCREEN MODE button:** Selects aspect ratios available for the screen.

5 **STILL button:** Pauses the image shown on the screen.

6 **INPUT SELECT button:** Selects input terminals.

7 **DISPLAY button:** Displays the name of the selected input terminal on the screen.

8 **SLEEP button:** Sets the sleep timer.

9 **MENU button:** Accesses the setup menu, allowing you to access various settings.

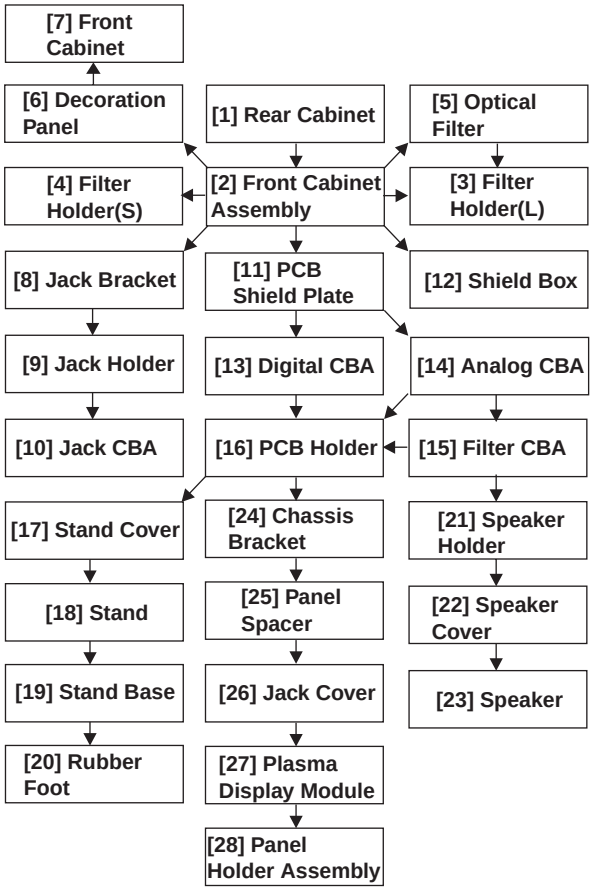
10 **PREVIOUS button:** Moves up one level in the setup menu.

11 **▲(up) / ▼(down) button:** Selects the various modes in the setup menu.
◄(left) / ►(right) button: Selects and adjusts levels for the various settings.
►(enter) button: Also used as the enter button.

CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps for the cabinet parts, and the CBA in order to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route and dress the cables as they were.



2. Disassembly Method

Step/ Loc. No.	Part	Removal		
		Fig. No	Remove/*unlock/release/ unplug/unclamp/desolder	Note
1	Rear Cabinet	1	26(S-1)	1
2	Front Cabinet Assembly	2	14(S-2)	2
3	Filter Holder(L)	2	6(S-3)	3
4	Filter Holder(S)	2	6(S-4)	4
5	Optical Filter	2	----------	-
6	Decoration Panel	3	14(S-3)	5
7	Front Cabinet	3	----------	-
8	Jack Bracket	4	4(S-6)	6
9	Jack Holder	4	2(S-7), (S-8)	7
10	Jack CBA	4 10	2(S-9), *CN751	8
11	PCB Shield Plate	4	18(S-10)	9
12	Shield Box	4	14(S-11)	10
13	Digital CBA	5 9	*CN1701, *CN1702, *CN1703, *CN1704, *CN1706, *CN1707, 4(S-12), 3(S-13)	11
14	Analog CBA	5 10	*CN201, *CN203, *CN204, *CN501, *CN502, *CN701, *CN702, *CN801, *CN802, 4(S-14), 2(S-15)	12
15	Filter CBA	5 11	*CN8001, Inlet Holder, AC Cord, (S-16A), 2(S-16B), (S-17)	13
16	PCB Holder	5	4(S-18)	14
17	Stand Cover	6	4(S-19), 6(S-19B)	15
18	Stand	6	4(S-20)	16
19	Stand Base	6	8(S-21)	17
20	Rubber Foot	6	----------	
21	Speaker Holder	7	8(S-22)	18
22	Speaker Cover	7	2(S-23)	19
23	Speaker	7	8(S-24)	20
24	Chassis Bracket	7	8(S-25)	21
25	Panel Spacer	7	8(S-26)	22
26	Jack Cover	7	2(S-28)	23
27	Plasma Display Module	8	----------	-
28	Panel Holder Assembly	8	----------	-
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)

Note:

(1) Order of steps in procedure. When reassembling, follow the steps in reverse order. These numbers are also used as the Identification (location) No. of parts in figures.

(2) Parts to be removed or installed.

(3) Fig. No. showing procedure of part location

(4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.

S=Screw, P=Spring, L=Locking Tab, CN=Connector, *=Unhook, Unlock, Release, Unplug, or Desolder
2(S-2) = two Screws (S-2)

(5) Refer to the following "Reference Notes in the Table.

Reference Notes in the Table

Caution:
Refer to "General Caution of Plasma Display" and "PDP Module Handling" of "IMPORTANT SAFETY PRECAUTIONS" section not to injure and/or break the Plasma Display Module.

1. Removal of the Rear Cabinet. Remove screws 26(S-1).
2. Removal of the Front Cabinet Assembly. Remove screws 14(S-2).
3. Removal of the Filter Holder(L). Remove screws 6(S-3).
4. Removal of the Filter Holder(S). Remove screws 6(S-4).
5. Removal of the Decoration Panel. Remove screws 14(S-3).
6. Removal of the Jack Bracket. Remove screws 4(S-6).
7. Removal of the Jack Holder. Remove screws 2(S-7) and (S-8).
8. Removal of the Jack CBA. Remove screws 2(S-9) and disconnect connector *CN751.
9. Removal of the PCB Shield Plate. Remove screws 18(S-10).
10. Removal of the Shield Box. Remove screws 14(S-11).
11. Removal of the Digital CBA. Disconnect connectors *CN1701, *CN1702, *CN1703, *CN1706, and *CN1707, and remove screws 4(S-12) and 3(S-13).
12. Removal of the Analog CBA. Disconnect connectors *CN201, *CN203, *CN204, *CN501, *CN502, *CN701, *CN702, *CN801, and *CN802, and remove screws 4(S-14) and 2(S-15).
13. Removal of the Filter CBA. Disconnect connector *CN8001, and remove the Inlet Holder and AC Cord, then remove screws (S-16A), 2(S-16B), and (S-17).
14. Removal of the PCB Holder. Remove screws 4(S-18).
15. Removal of the Stand Cover. Remove screws 4(S-19) and 6(S-19B).
16. Removal of the Stand. Remove screws 4(S-20).
17. Removal of the Stand Base. Remove screws 8(S-21).
18. Removal of the Speaker Holder. Remove screws 8(S-22).
19. Removal of the Speaker Cover. Remove screws 2(S-23).
20. Removal of the Speaker. Remove screws 8(S-24).
21. Removal of the Chassis Bracket. Remove screws 8(S-25).
22. Removal of the Panel Spacer. Remove screws 8(S-26) and 8(S-27).
23. Removal of the Jack Cover. Remove screws 2(S-28).

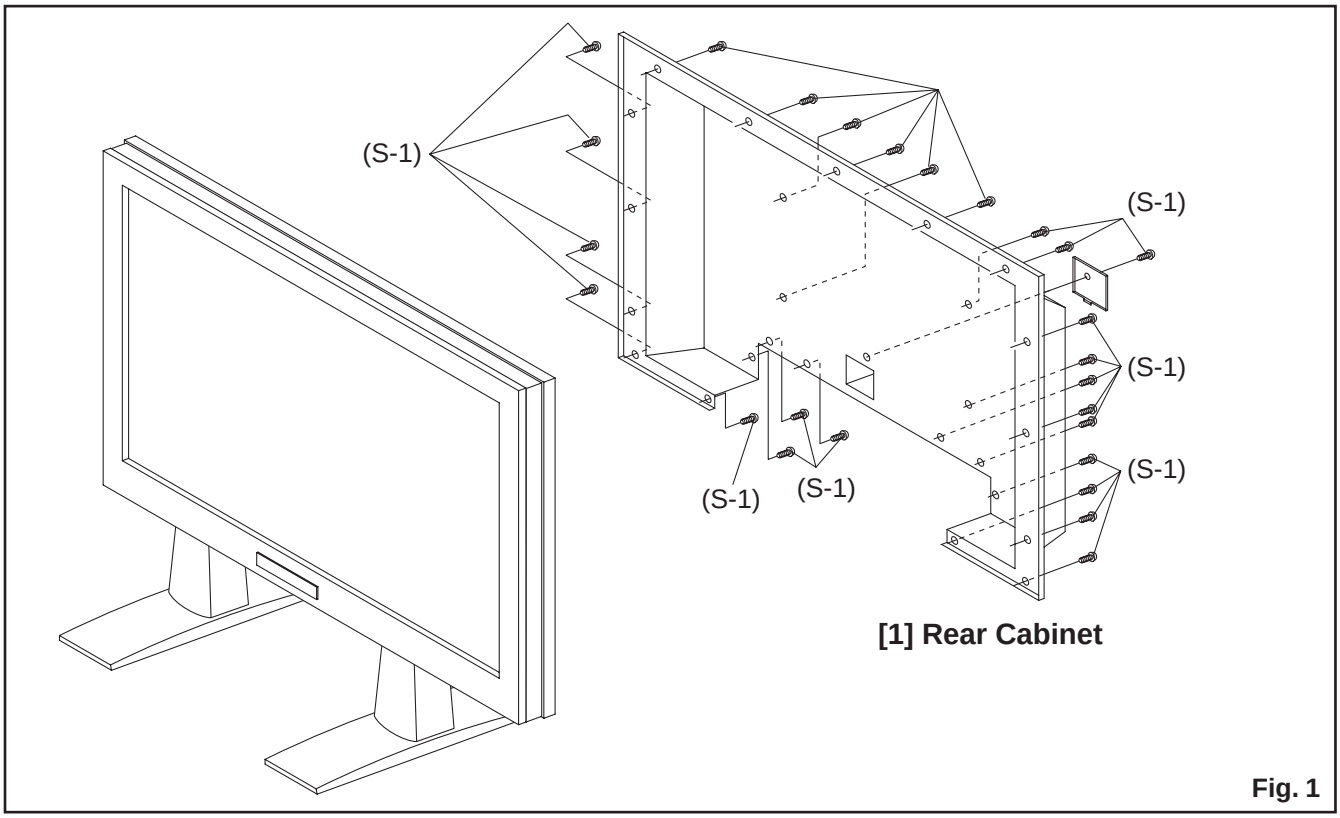

(S-1)
(S-1)
(S-1)
(S-1)
(S-1)
(S-1)
[1] Rear Cabinet

Fig. 1

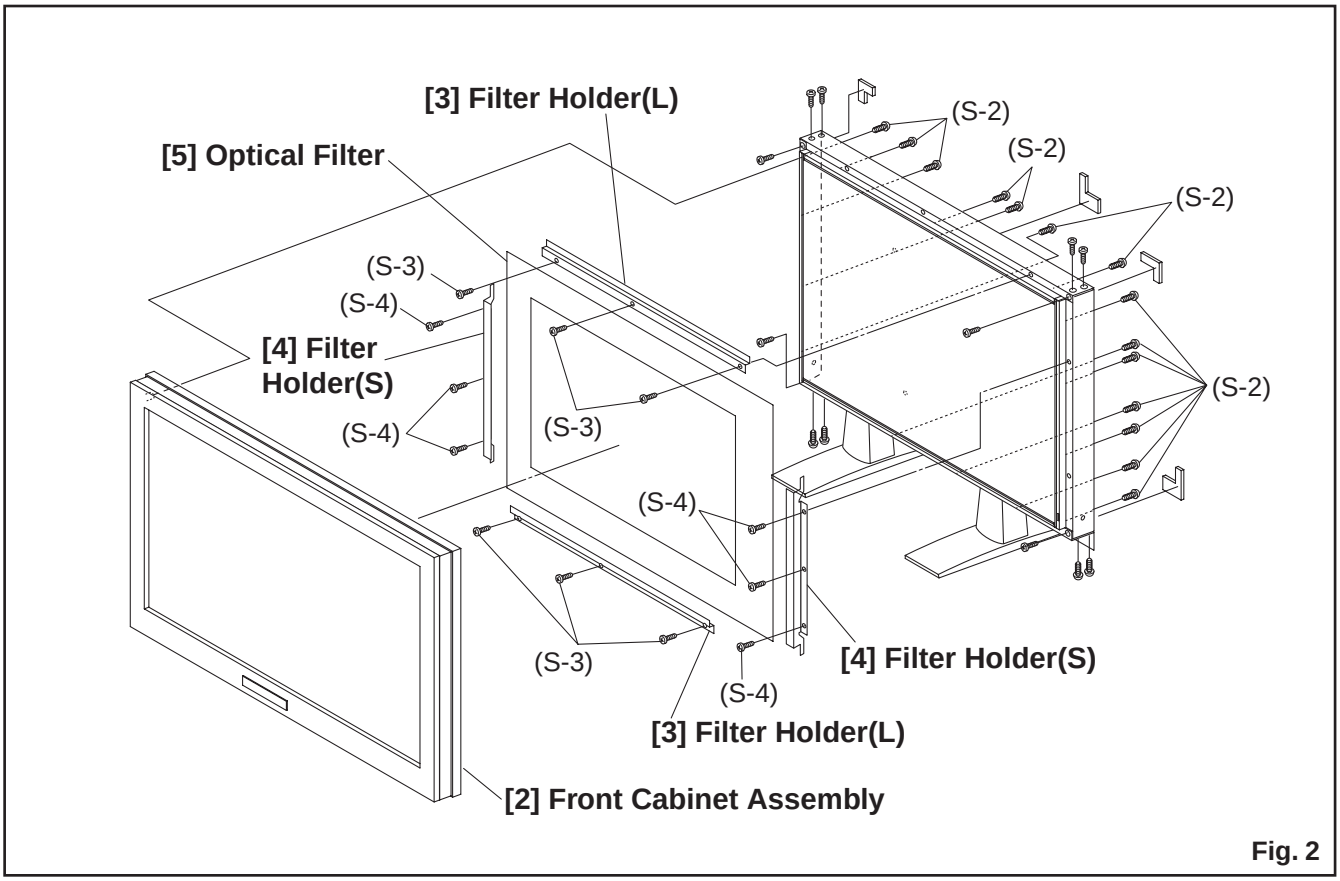

[3] Filter Holder(L)
[5] Optical Filter
(S-2)
(S-2)
(S-2)
(S-3)
(S-4)
[4] Filter Holder(S)
(S-4)
(S-3)
(S-2)
(S-4)
(S-3)
(S-4)
[4] Filter Holder(S)
[3] Filter Holder(L)
[2] Front Cabinet Assembly

Fig. 2

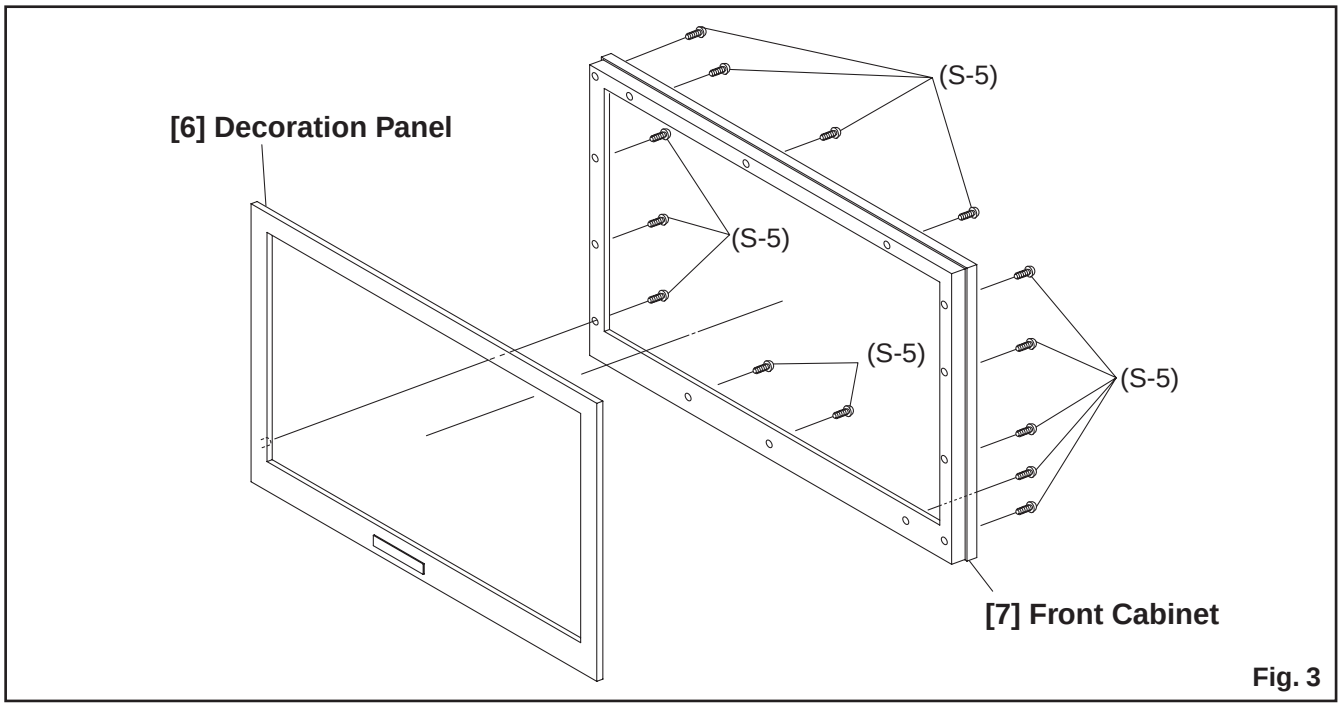

[6] Decoration Panel
(S-5)
(S-5)
(S-5)
(S-5)
[7] Front Cabinet

Fig. 3

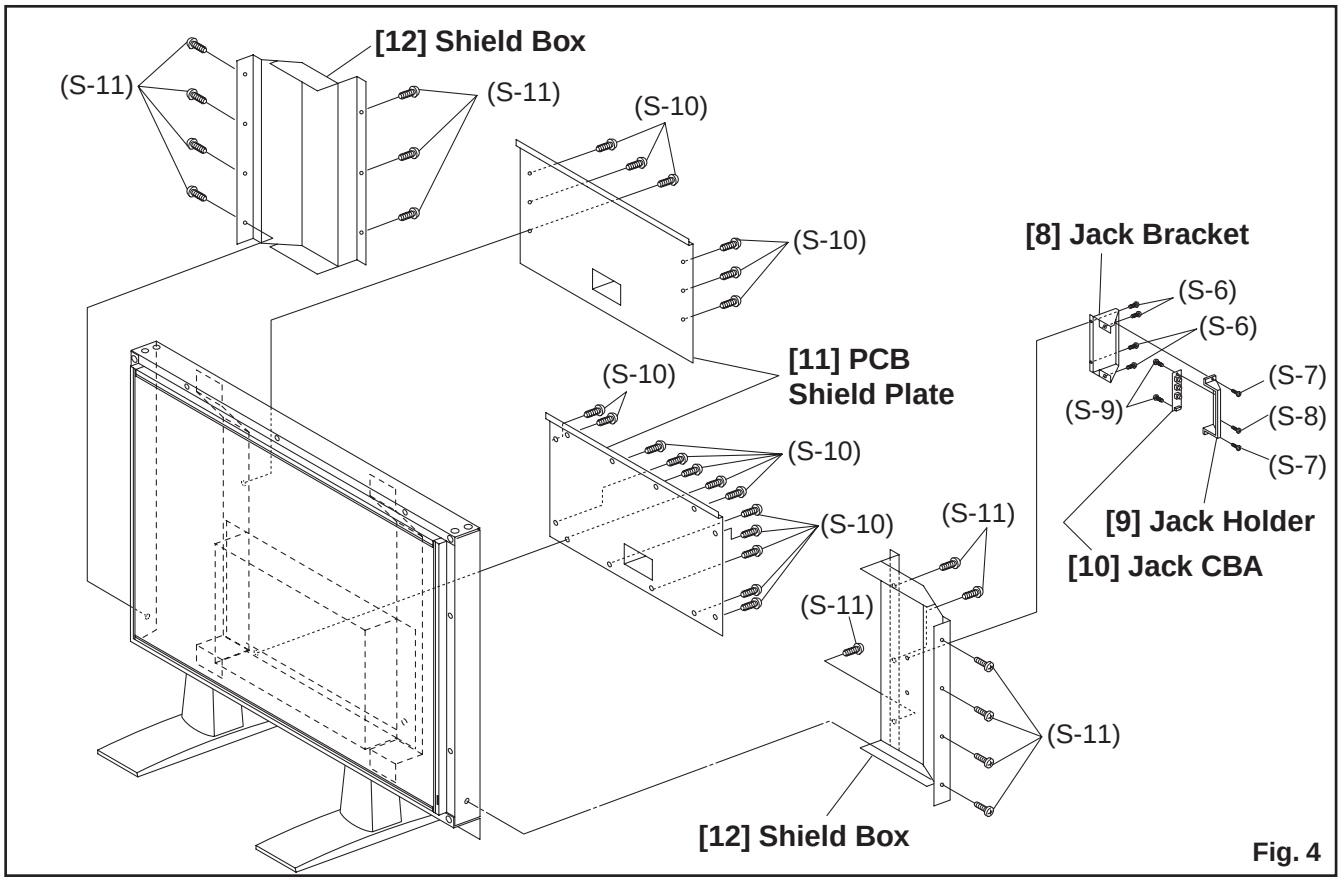

[12] Shield Box
(S-11)
(S-11)
(S-10)
(S-10)
[8] Jack Bracket
(S-6)
(S-6)
(S-7)
(S-9)
(S-8)
(S-7)
[11] PCB
Shield Plate
(S-10)
(S-10)
(S-10)
(S-11)
[9] Jack Holder
[10] Jack CBA
(S-11)
(S-11)
[12] Shield Box

Fig. 4

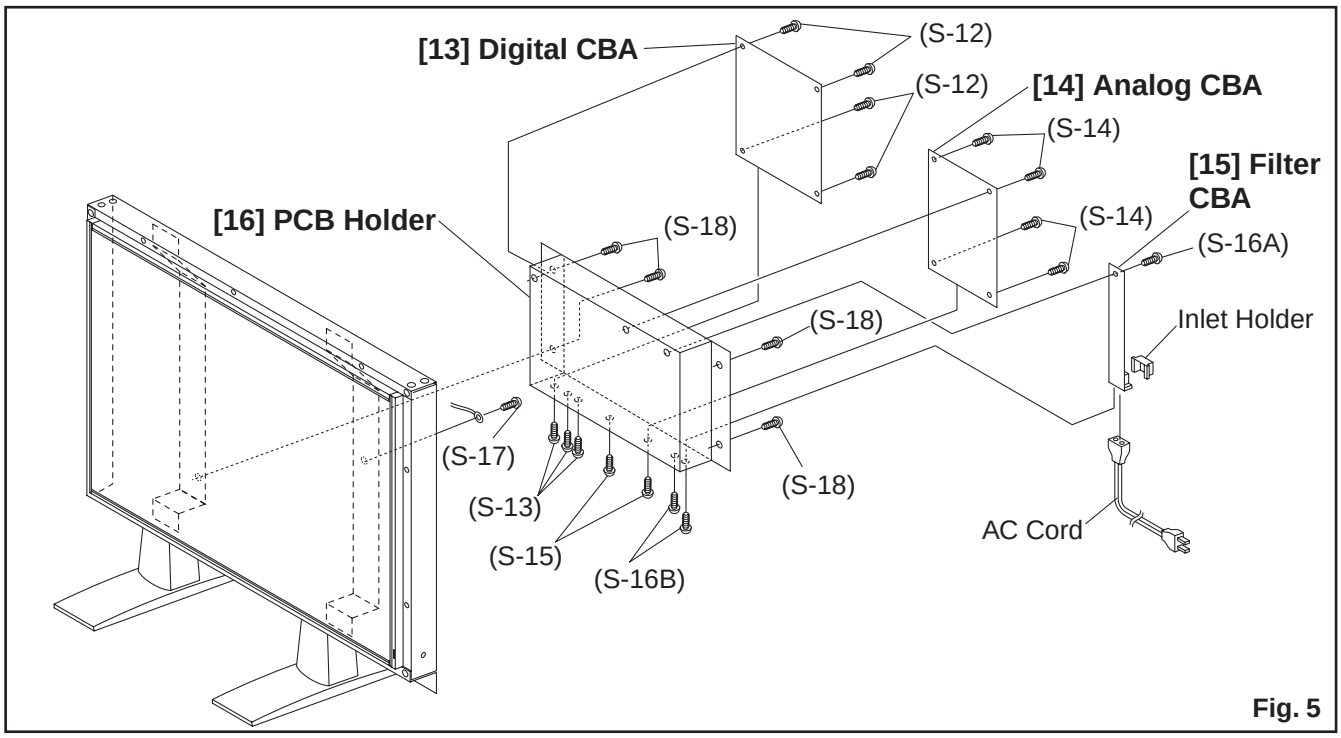

[13] Digital CBA
(S-12)
(S-12)
[14] Analog CBA
(S-14)
[15] Filter CBA
[16] PCB Holder
(S-18)
(S-14)
(S-16A)
(S-18)
Inlet Holder
(S-17)
(S-13)
(S-15)
(S-16B)
(S-18)
AC Cord

Fig. 5

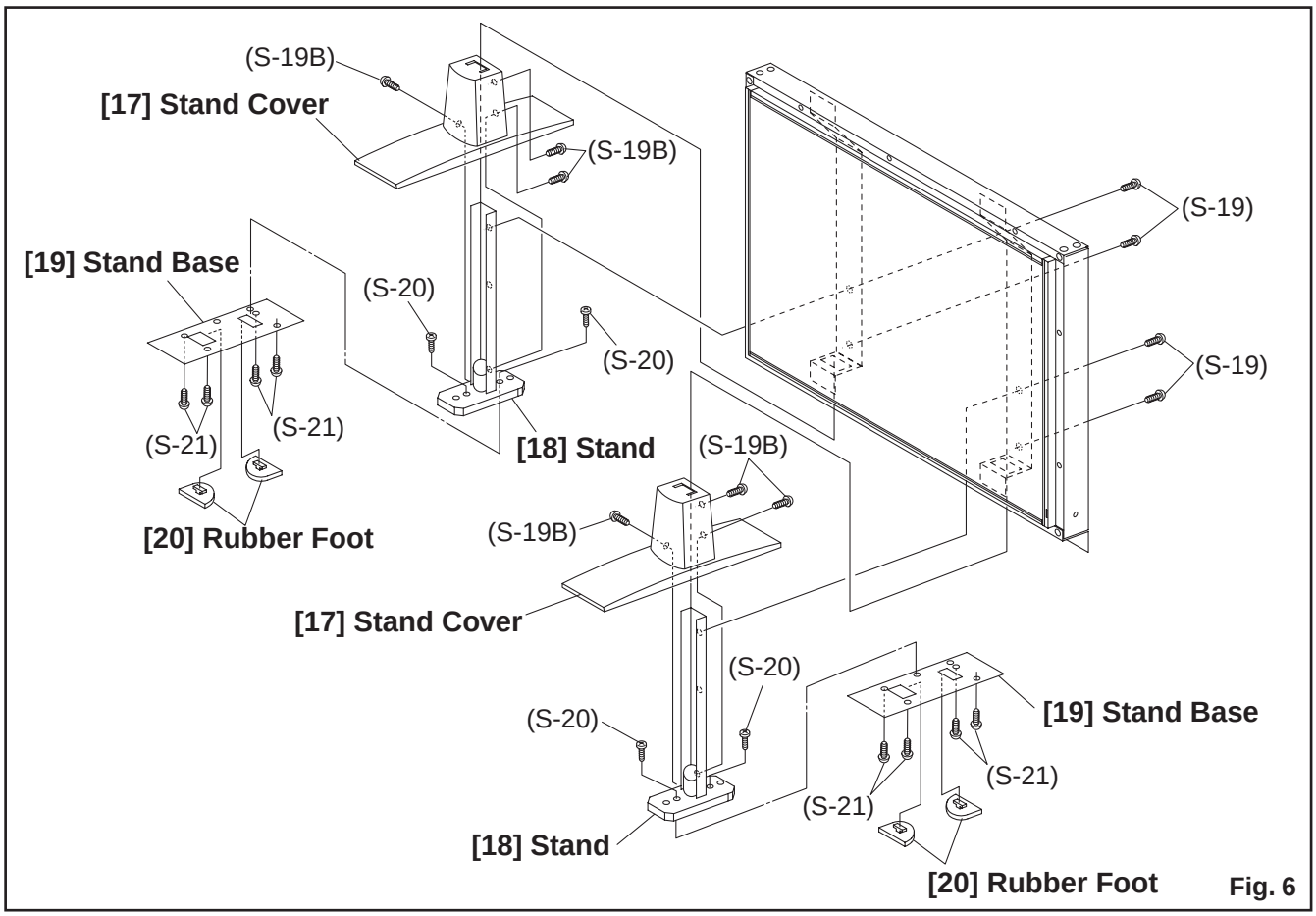

(S-19B)
[17] Stand Cover
(S-19B)
(S-19)
[19] Stand Base
(S-20)
(S-20)
(S-19)
(S-21)
(S-21)
[18] Stand
(S-19B)
[20] Rubber Foot
(S-19B)
[17] Stand Cover
(S-20)
(S-20)
[19] Stand Base
(S-21)
(S-21)
[18] Stand
[20] Rubber Foot

Fig. 6

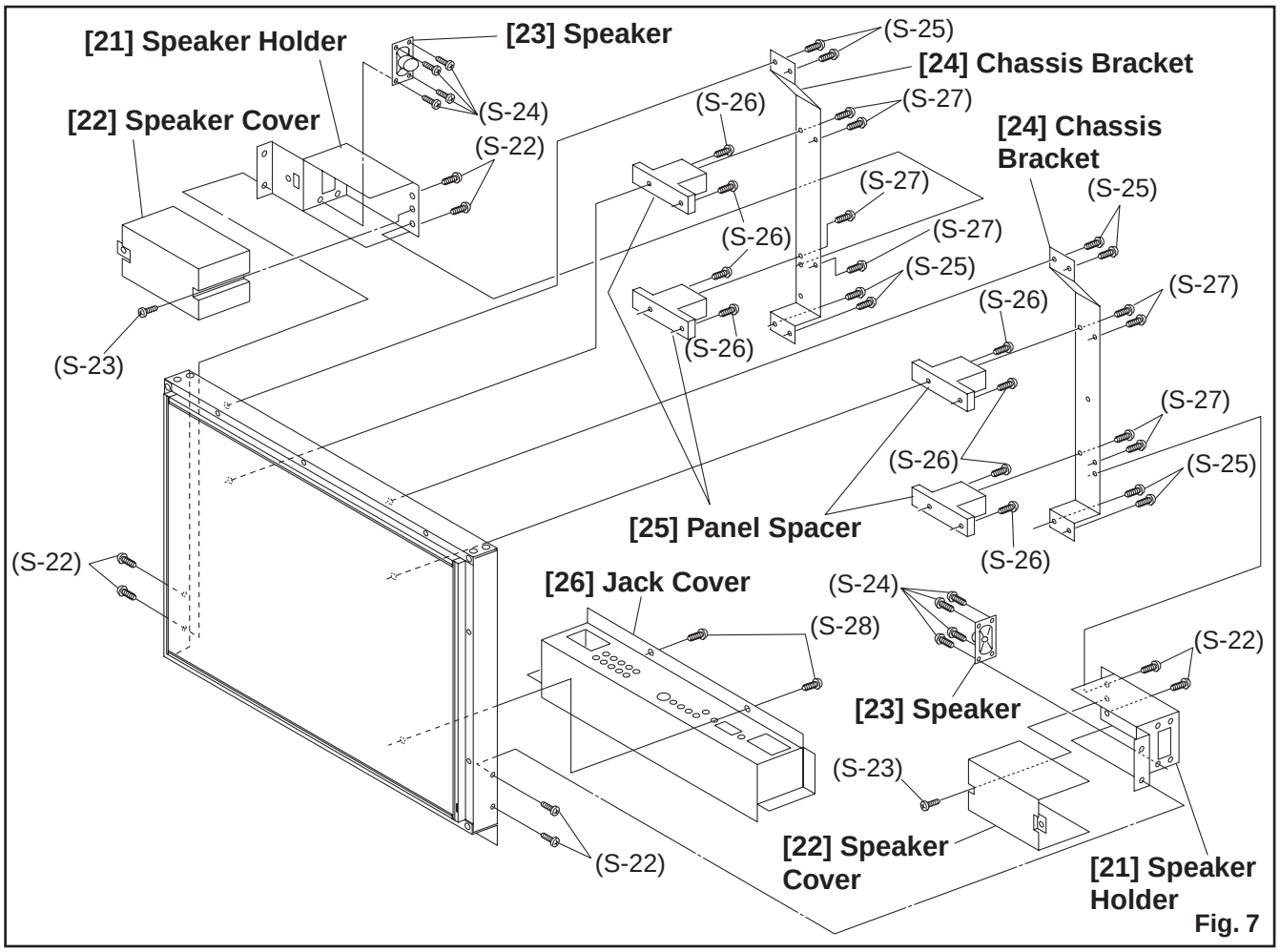

[21] Speaker Holder
[23] Speaker
(S-25)
[24] Chassis Bracket
(S-24)
(S-26)
(S-27)
[22] Speaker Cover
(S-22)
[24] Chassis Bracket
(S-27)
(S-25)
(S-26)
(S-27)
(S-25)
(S-23)
(S-26)
(S-27)
(S-26)
(S-27)
(S-25)
[25] Panel Spacer
(S-26)
(S-22)
[26] Jack Cover
(S-24)
(S-28)
(S-22)
[23] Speaker
(S-23)
(S-22)
[22] Speaker Cover
[21] Speaker Holder

Fig. 7

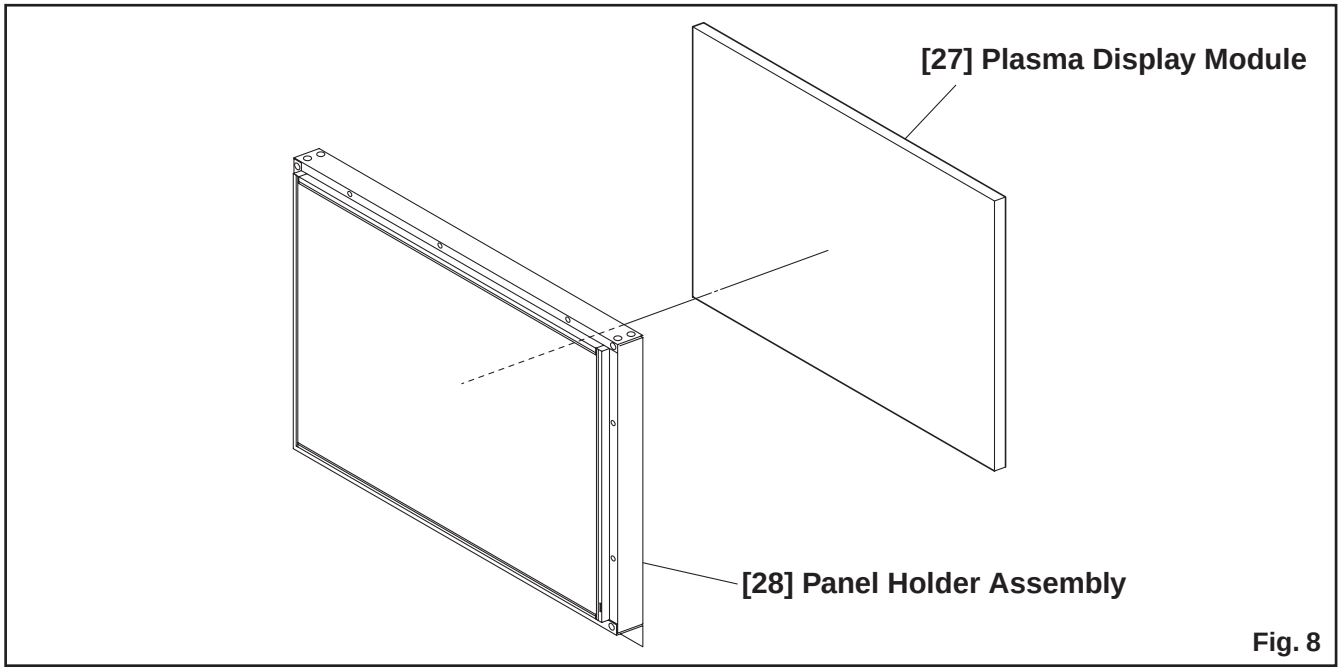

[27] Plasma Display Module
[28] Panel Holder Assembly

Fig. 8

Plasma Display Cable Wiring Diagram

Cables on the Digital CBA

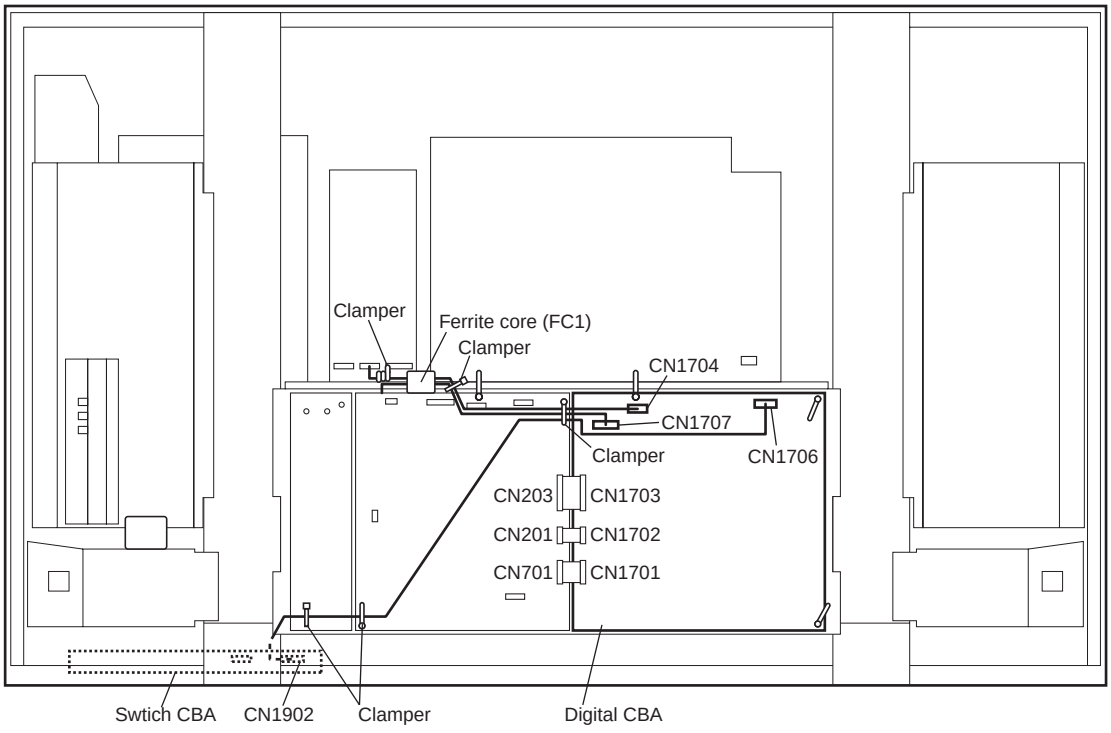


Fig. 9

Cables on the Analog CBA

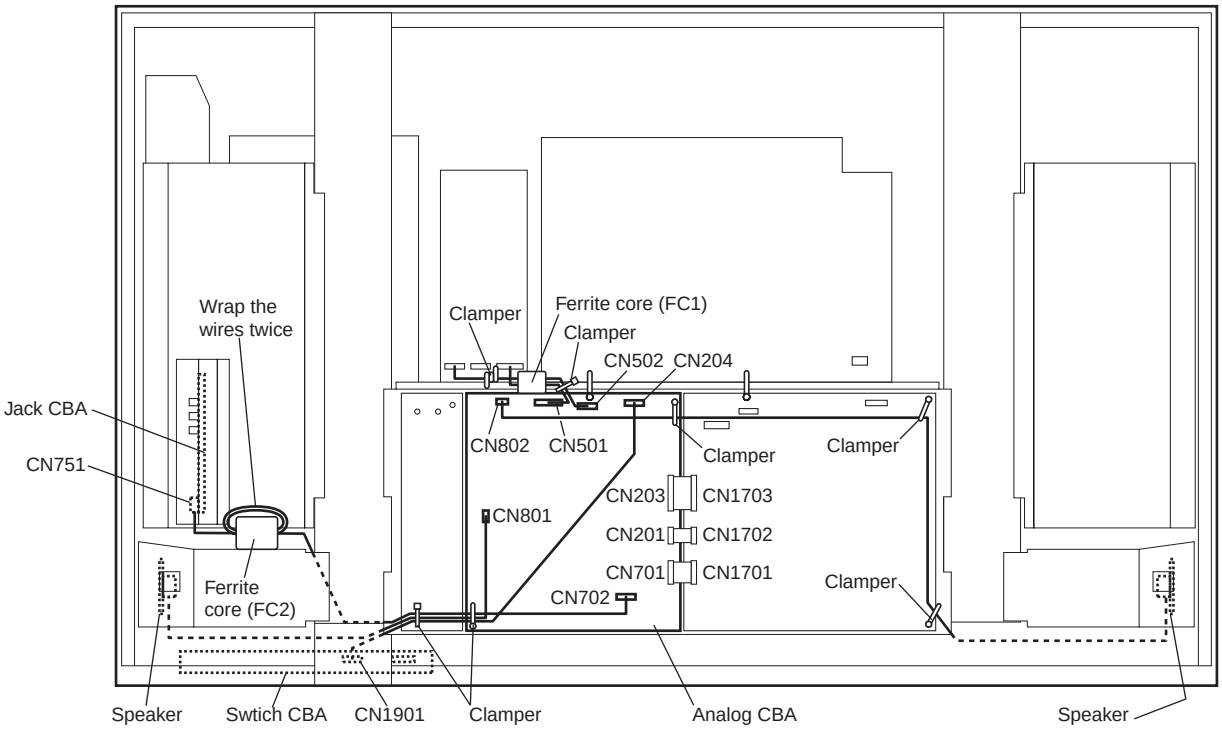


Fig. 10

Cables on the Filter CBA

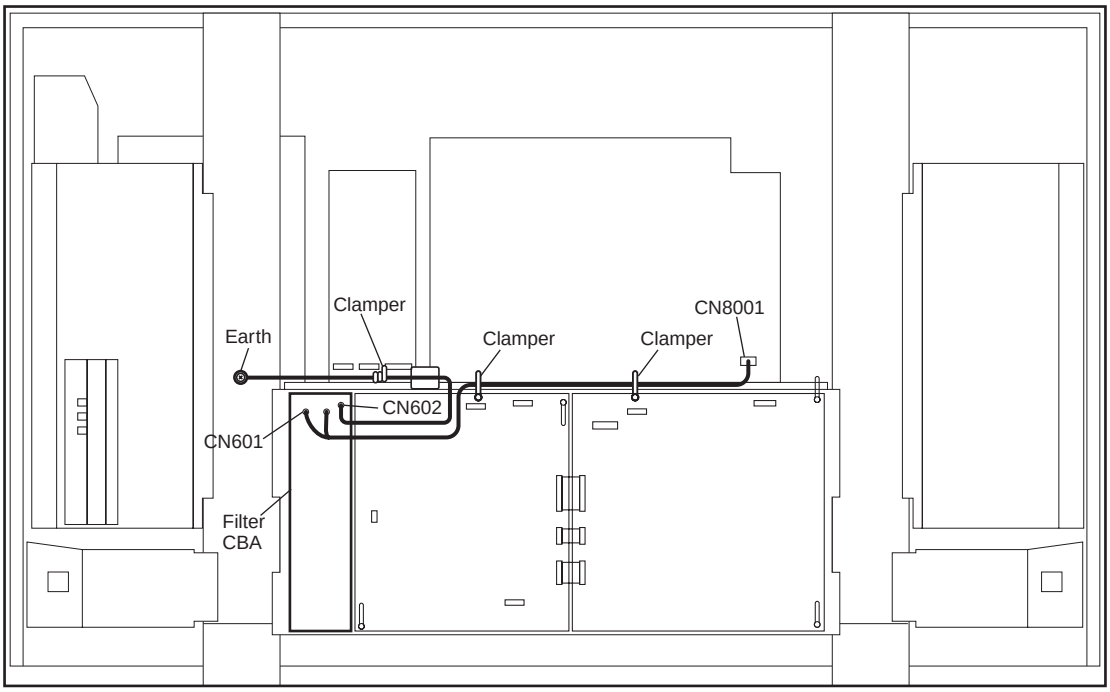


Fig. 11

ELECTRICAL ADJUSTMENT INSTRUCTIONS

General Note:
"CBA" is abbreviation for "Circuit Board Assembly."

NOTE:

Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed.
Also, do not attempt these adjustments unless the proper equipment is available.

Test Equipment Required

1. NTSC Pattern Generator (Color Bar W/White Window, Red Color, Gray Scale)
2. Plastic Tip Driver
3. Remote control unit: Part No. N0121UD or N0134UD
4. Color Analyzer

How to make service remote control unit:

1. Prepare normal remote control unit. (Part No. N0121UD or N0134UD) Remove 3 Screws from the back lid. (Fig. 1-1)
2. Add J1 (Jumper Wire) to the remote control CBA. (Fig. 1-2)

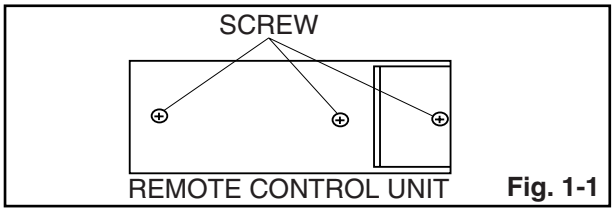


Fig. 1-1

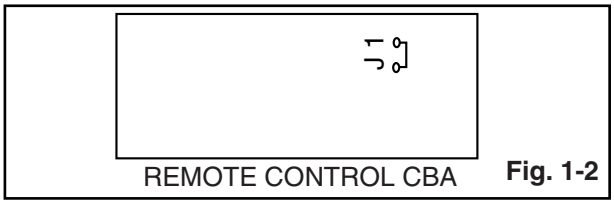


Fig. 1-2

How to set up the service mode:

Service mode:

1. To turn the power on, press "POWER" button on the normal remote control unit or the unit.
2. Use the service remote control unit.
3. Press "SLEEP" button on the service remote control unit. Fig. 2 appears on the screen.

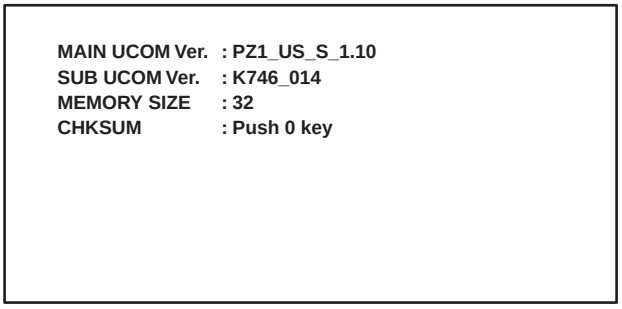


Fig. 2

4. Confirm the following
   a. Version of main micro computer --- PZ1_US_S_1.10
   b. Version of sub micro computer --- K746_014
   c. Memory size --- 32
   d. FLASH DATA Chek Sum (press "0" button on the service remote control unit) --- 5F1Dh

Initial setting:

1. To turn the power on, press "POWER" button on the normal remote control unit or the unit.
2. Enter the service mode.
3. To reset to factory setting, press "DISPLAY" button on the service remote control unit.
   - "INITIALIZE" (red) appears on the screen as shown in Fig. 3.

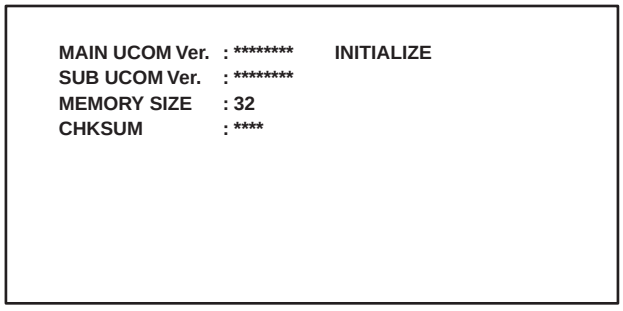


Fig. 3

   - After few seconds (completion initialization), color of "INITIALIZE" will change green.

1. Auto Calibration (Black & White)

1. Operate the unit more than 20 minutes.
2. Input black raster signal from only Component AV Input (2) video/Y jack (green). Do not input any signal to Component AV Input (2) video/Pb or Pr jack.
3. Enter the service mode.
4. To enter the Auto Calibration (Black) adjustment mode, press "2" button on the service remote control unit. If no signal, "No signal" appears on the screen.
5. To start auto adjustment, press "CH ▲" button on the service remote control unit.
6. Input white raster signal (100% or 110%) from only Component AV Input (2) video/Y jack (green). Do not input any signal to Component AV Input (2) video/Pb or Pr jack.
7. To enter the Auto Calibration (White) adjustment mode, press "3" button on the service remote control unit. If no signal, "No signal" appears on the screen.
8. To start auto adjustment, press "CH ▲" button on the service remote control unit.
9. Upon completion, wait for at least 5 seconds.
10. Unplug AC cord and plug it in AC outlet again to reset then enter the service mode again.
11. Confirm that both the "Black Calibration : Complete" and "White Calibration : Complete" are displayed on the screen as shown in Fig. 4. If "Yet" is displayed instead of "Complete", repeat above steps.

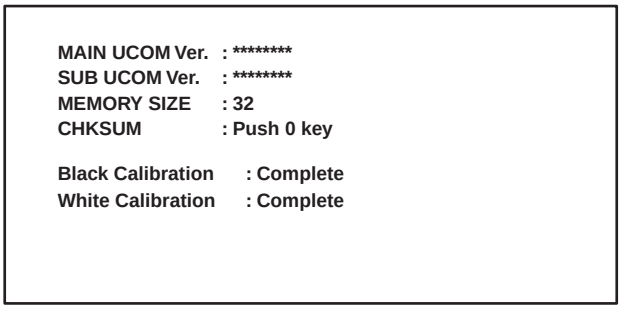


Fig. 4

2. White Balance Adjustment

Purpose: To mix red, green and blue beams correctly for pure white.

Symptom of Misadjustment: White becomes bluish or reddish.

Test Point	Adj. Point	Mode	Input
Screen	CH ▲ / ▼ buttons	Video 1 & Component 2	Gray scale pattern signal (5 scales)
M. EQ.			**Spec.**
Pattern Generator, Color analyzer			See below

Figure

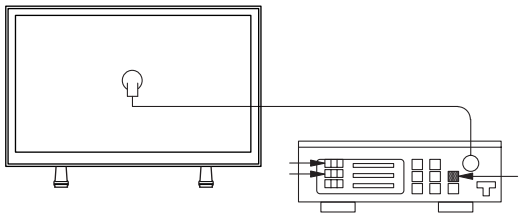


Fig. 5

Notes:

- Use service remote control unit.
- This adjustment should be performed in both Component 2 mode and Video 1 mode. Adjustment in Component 2 mode should be performed after completion of ADC calibration adjustment.

1. Operate the unit more than 20 minutes.
2. Input the gray scale pattern signal (5 scales) from Component AV Input (2) video/Y jack.
3. Set the color analyzer to the CHROMA mode and after zero point calibration, for high light adjustment, bring the optical receptor to the 2nd scale as shown below.

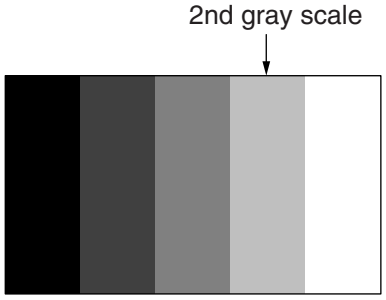


Fig. 6

4. Enter the Service mode.

5. Enter the component adjustment mode, press "VOL ▼" button once on the service remote control unit.
6. Press "4" button on the service remote control unit for Red adjustment. Press "6" button on the service remote control unit for Blue adjustment.
7. In each color mode, press "CH ▲ / ▼" button to adjust the values of color.
8. Adjust Red and Blue color so that the temperature becomes 9200°K-5MPCD (x: 288 / y: 288) ±3%.
9. For low light adjustment, bring the optical receptor to the 4th scale as shown below.

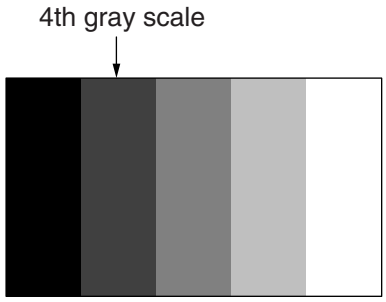


Fig. 7

10. Press "1" button on the service remote control unit for Red adjustment. Press "3" button on the service remote control unit for Blue adjustment.
11. In each color mode, press "CH ▲ / ▼" button to adjust the values of color.
12. Adjust Red and Blue color so that the temperature becomes 9200°K-5MPCD (x: 288 / y: 288) ±3%.
13. Check adjustment value in high light adjustment again. If adjustment value is not within specification, repeat steps 2-8.
14. To enter the adjustment mode in the Composite mode (Video 1 mode), press "VOL ▼" button once on the service remote control unit.
15. Input the gray scale pattern signal (5 scales) from Composite AV Input (1) video jack (Video 1).
16. Adjust in the same way above.

3. Sub-Brightness Adjustment

Purpose: To get proper brightness.

Symptom of Misadjustment: If Sub-Brightness is incorrect, proper brightness cannot be obtained by adjusting the Brightness Control.

Adj. Point	Mode	Input
CH ▲ / ▼ buttons	Video 1 & Component 2	IQW
M. EQ.	**Spec.**	
Pattern Generator	See below	
Figure		

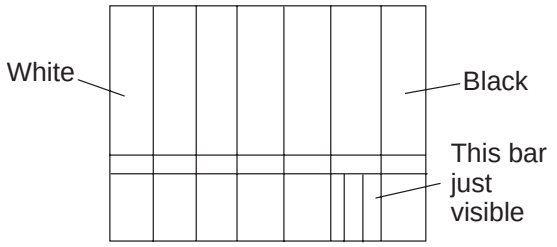


Fig. 8

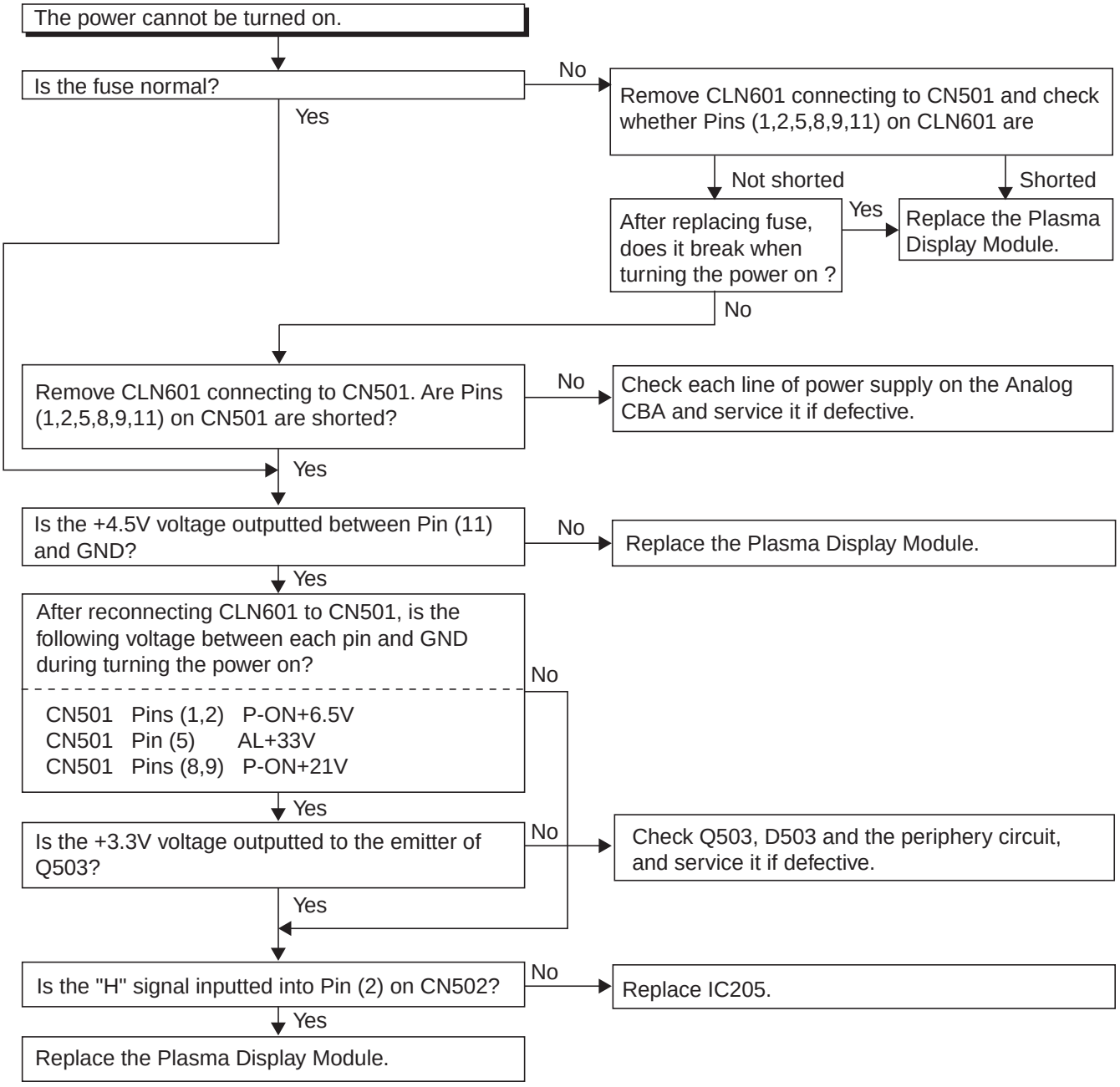
Notes:

- IQW Setup level --- 7.5 IRE
- Use service remote control unit.
- This adjustment should be performed in both Component 2 mode and Video 1 mode. Adjustment in Component 2 mode should be performed after completion of ADC calibration adjustment.

1. Enter the Service mode. Then input IQW signal from Component AV Input (2) video.
2. Press "VOL ▼" button on the service remote control unit.
3. Press "7" on the service remote control unit.
4. Press "CH ▲ / ▼" buttons so that the bar is just visible. (Refer to Fig. 8.)
5. Input IQW signal from Composite AV Input (1) video jack (Video 1).
6. To adjust in Composite mode (Video 1 mode), repeat steps 2 - 4.
7. Turn the power off and on again, using the main power button on the TV unit.

TROUBLESHOOTING

FLOW CHART NO.1


The power cannot be turned on.
Is the fuse normal?
No
Remove CLN601 connecting to CN501 and check whether Pins (1,2,5,8,9,11) on CLN601 are
Yes
Not shorted
Shorted
After replacing fuse, does it break when turning the power on ?
Yes
Replace the Plasma Display Module.
No
Remove CLN601 connecting to CN501. Are Pins (1,2,5,8,9,11) on CN501 are shorted?
No
Check each line of power supply on the Analog CBA and service it if defective.
Yes
Is the +4.5V voltage outputted between Pin (11) and GND?
No
Replace the Plasma Display Module.
Yes
After reconnecting CLN601 to CN501, is the following voltage between each pin and GND during turning the power on?
No
CN501 Pins (1,2) P-ON+6.5V
CN501 Pin (5) AL+33V
CN501 Pins (8,9) P-ON+21V
Yes
Is the +3.3V voltage outputted to the emitter of Q503?
No
Check Q503, D503 and the periphery circuit, and service it if defective.
Yes
Is the "H" signal inputted into Pin (2) on CN502?
No
Replace IC205.
Yes
Replace the Plasma Display Module.

FLOW CHART NO. 2

Video signal is not outputted normally.

↓

Input video signal.

↓

Is the video signal outputted to each pins on the CN701 of the Analog CBA?
(If the video signal is not outputted when signal is inputted to component 1, 2 jack on the rear, replace the Digital CBA.)

When inputting video signal to Video 1 S-VIDEO jack...
CN701 Pin (10) VIDEO1-Y
CN701 Pin (12) VIDEO1-C

No → Check lines between Pins (10, 12) on CN701 and JK701, and service it if defective.

When inputting video signal to Video 1 composite jack...
CN701 Pin (8) VIDEO1

No → Check lines between Pin (8) on CN701 and JK702, and service it if defective.

When inputting video signal to Video 2 S-VIDEO jack...
CN701 Pin (4) VIDEO2-Y
CN701 Pin (6) VIDEO2-C

No → Check lines between Pins (4, 6) on CN701 and JK701, and service it if defective.

When inputting video signal to Video 2 composite jack...
CN701 Pin (2) VIDEO2

No → Check lines between Pin (2) on CN701 and JK702, and service it if defective.

↓ Yes

Are serial data signal outputted to TP2022 and TP2023 on the Digital CBA?

No → Replace the Digital CBA.

↓ Yes

Replace the Plasma Display Module.

FLOW CHART NO. 3

Audio is not outputted from speakers normally.

↓

Input audio signal.

↓

Is audio signal inputted to each pins on IC202 and IC203?
[****] is the check point on the componet side.

When inputting to Video 1 jack...
IC203 Pin (13) [J165] AUDIO1(L)
IC202 Pin (13) [J135] AUDIO1(R)

No → Check lines between Pin (13) on IC203 and JK702, between Pin (13) on IC202 and JK702, and service it if defective.

When inputting to Video 2 jack...
IC203 Pin (14) [J166] AUDIO2(L)
IC202 Pin (14) [J129] AUDIO2(R)

No → Check lines between Pin (14) on IC203 and JK753, between Pin (14) on IC202 and JK754 and service it if defective.

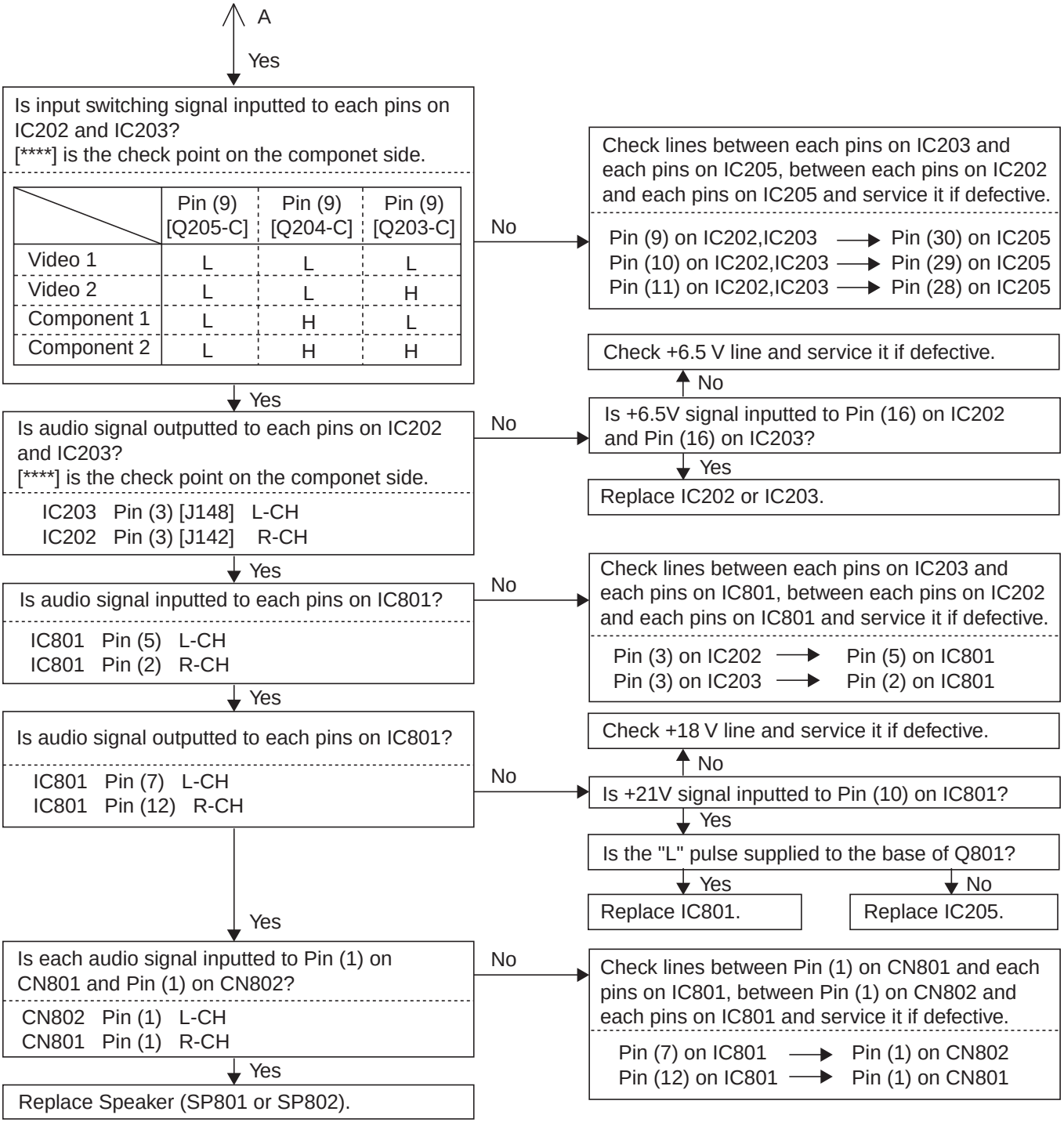
When inputting to component 1 jack...
IC203 Pin (15) [CN201 Pin (1)] AUDIO3(L)
IC202 Pin (15) [CN201 Pin (2)] AUDIO3(R)

No → Replace the Digital CBA.

When inputting to component 2 jack...
IC203 Pin (12) [CN201 Pin (4)] AUDIO4(L)
IC202 Pin (12) [CN201 Pin (5)] AUDIO4(R)

No → Replace the Digital CBA.

(continued to "A" on next page)


A
Yes
Is input switching signal inputted to each pins on IC202 and IC203?
[****] is the check point on the componet side.
Pin (9) [Q205-C]
Pin (9) [Q204-C]
Pin (9) [Q203-C]
Video 1 L L L
Video 2 L L H
Component 1 L H L
Component 2 L H H
No
Check lines between each pins on IC203 and each pins on IC205, between each pins on IC202 and each pins on IC205 and service it if defective.
Pin (9) on IC202,IC203 → Pin (30) on IC205
Pin (10) on IC202,IC203 → Pin (29) on IC205
Pin (11) on IC202,IC203 → Pin (28) on IC205
Yes
Is audio signal outputted to each pins on IC202 and IC203?
[****] is the check point on the componet side.
IC203 Pin (3) [J148] L-CH
IC202 Pin (3) [J142] R-CH
No
Is +6.5V signal inputted to Pin (16) on IC202 and Pin (16) on IC203?
No
Check +6.5 V line and service it if defective.
Yes
Replace IC202 or IC203.
Yes
Is audio signal inputted to each pins on IC801?
IC801 Pin (5) L-CH
IC801 Pin (2) R-CH
No
Check lines between each pins on IC203 and each pins on IC801, between each pins on IC202 and each pins on IC801 and service it if defective.
Pin (3) on IC202 → Pin (5) on IC801
Pin (3) on IC203 → Pin (2) on IC801
Yes
Is audio signal outputted to each pins on IC801?
IC801 Pin (7) L-CH
IC801 Pin (12) R-CH
No
Is +21V signal inputted to Pin (10) on IC801?
No
Check +18 V line and service it if defective.
Yes
Is the "L" pulse supplied to the base of Q801?
Yes
Replace IC801.
No
Replace IC205.
Yes
Is each audio signal inputted to Pin (1) on CN801 and Pin (1) on CN802?
CN802 Pin (1) L-CH
CN801 Pin (1) R-CH
No
Check lines between Pin (1) on CN801 and each pins on IC801, between Pin (1) on CN802 and each pins on IC801 and service it if defective.
Pin (7) on IC801 → Pin (1) on CN802
Pin (12) on IC801 → Pin (1) on CN801
Yes
Replace Speaker (SP801 or SP802).

FLOW CHART NO. 4

Audio is not outputted from audio output terminal normally.

↓

Input audio signal.

↓

Is audio signal inputted to each pins on IC202 and IC203?
[****] is the check point on the componet side.

When inputting to Video 1 jack...
IC203 Pin (13) [J165] AUDIO1(L)
IC202 Pin (13) [J135] AUDIO1(R)

No → Check lines between Pin (13) on IC203 and JK702, between Pin (13) on IC202 and JK702, and service it if defective.

When inputting to Video 2 jack...
IC203 Pin (14) [J166] AUDIO2(L)
IC202 Pin (14) [J129] AUDIO2(R)

No → Check lines between Pin (14) on IC203 and JK753, between Pin (14) on IC202 and JK754 and service it if defective.

When inputting to component 1 jack...
IC203 Pin (15) [CN201 Pin (1)] AUDIO3(L)
IC202 Pin (15) [CN201 Pin (2)] AUDIO3(R)

No → Replace the Digital CBA.

When inputting to component 2 jack...
IC203 Pin (12) [CN201 Pin (4)] AUDIO4(L)
IC202 Pin (12) [CN201 Pin (5)] AUDIO4(R)

No → Replace the Digital CBA.

↓ Yes

Is input switching signal inputted to each pins on IC202 and IC203?
[****] is the check point on the componet side.

	Pin (9) [Q205-C]	Pin (9) [Q204-C]	Pin (9) [Q203-C]
Video 1	L	L	L
Video 2	L	L	H
Component 1	L	H	L
Component 2	L	H	H

No → Check lines between each pins on IC203 and each pins on IC205, between each pins on IC202 and each pins on IC205 and service it if defective.

Pin (9) on IC202,IC203 → Pin (30) on IC205
Pin (10) on IC202,IC203 → Pin (29) on IC205
Pin (11) on IC202,IC203 → Pin (28) on IC205

↓ Yes

Is audio signal outputted to each pins on IC202 and IC203?
[****] is the check point on the componet side.

IC203 Pin (3) [J148] L-CH
IC202 Pin (3) [J142] R-CH

No → Is +6.5V signal inputted to Pin (16) on IC202 and Pin (16) on IC203?

Yes → Replace IC202 or IC203.

No → Check +6.5 V line and service it if defective.

↓ Yes

Is audio signal outputted to the collector of Q707 (L-CH) and the collector of Q708 (R-CH)?

No → Check Q707, Q708 and the periphery circuit, and service it if defective.

↓ Yes

Is the "L" pulse supplied to the base of Q711 and the base of Q712?

No → Is the "L" pulse supplied to the base of Q710?

Yes → Check Q709 and the periphery circuit, and service it if defective.

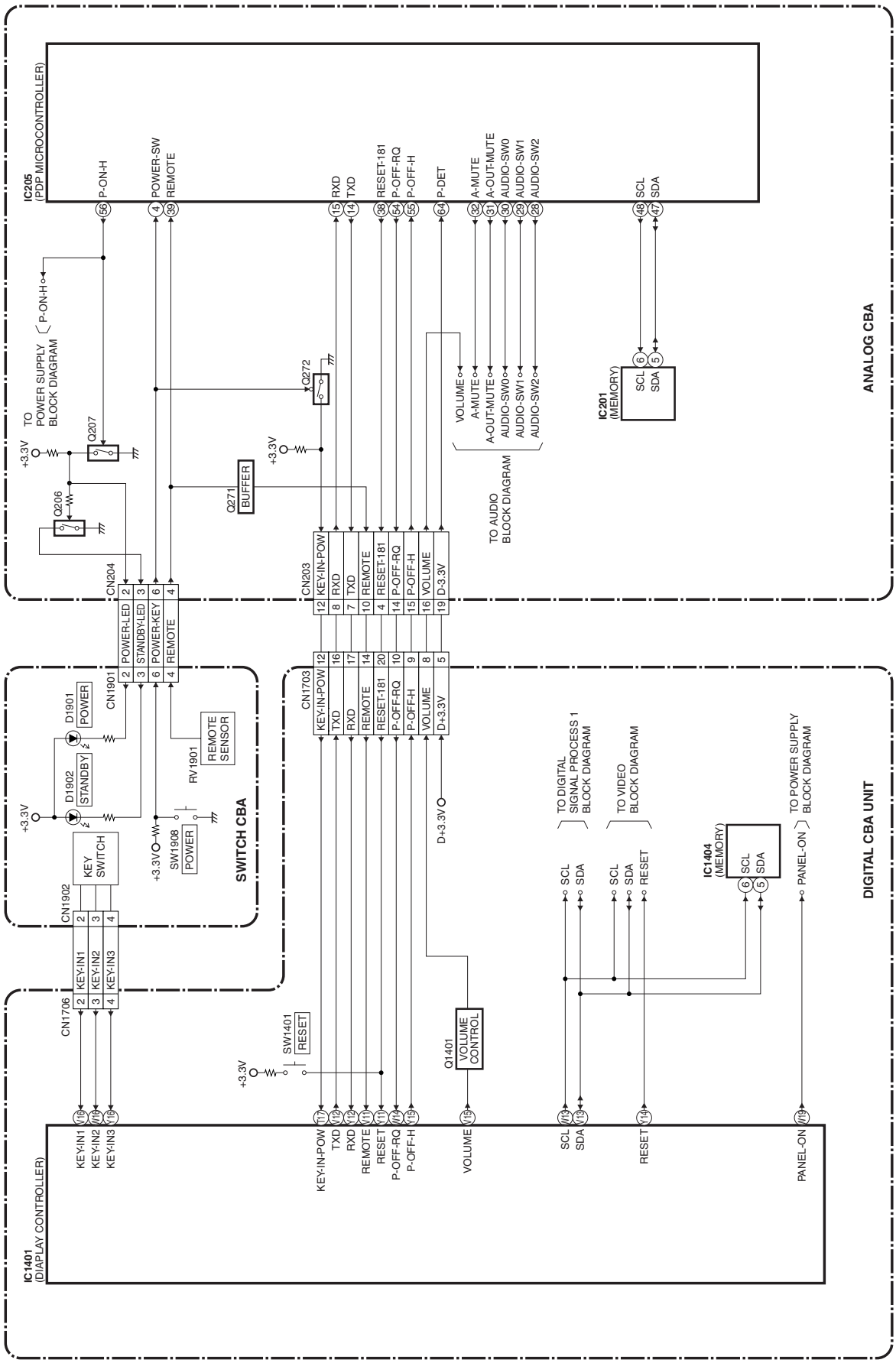
No → Replace IC205.

↓ Yes

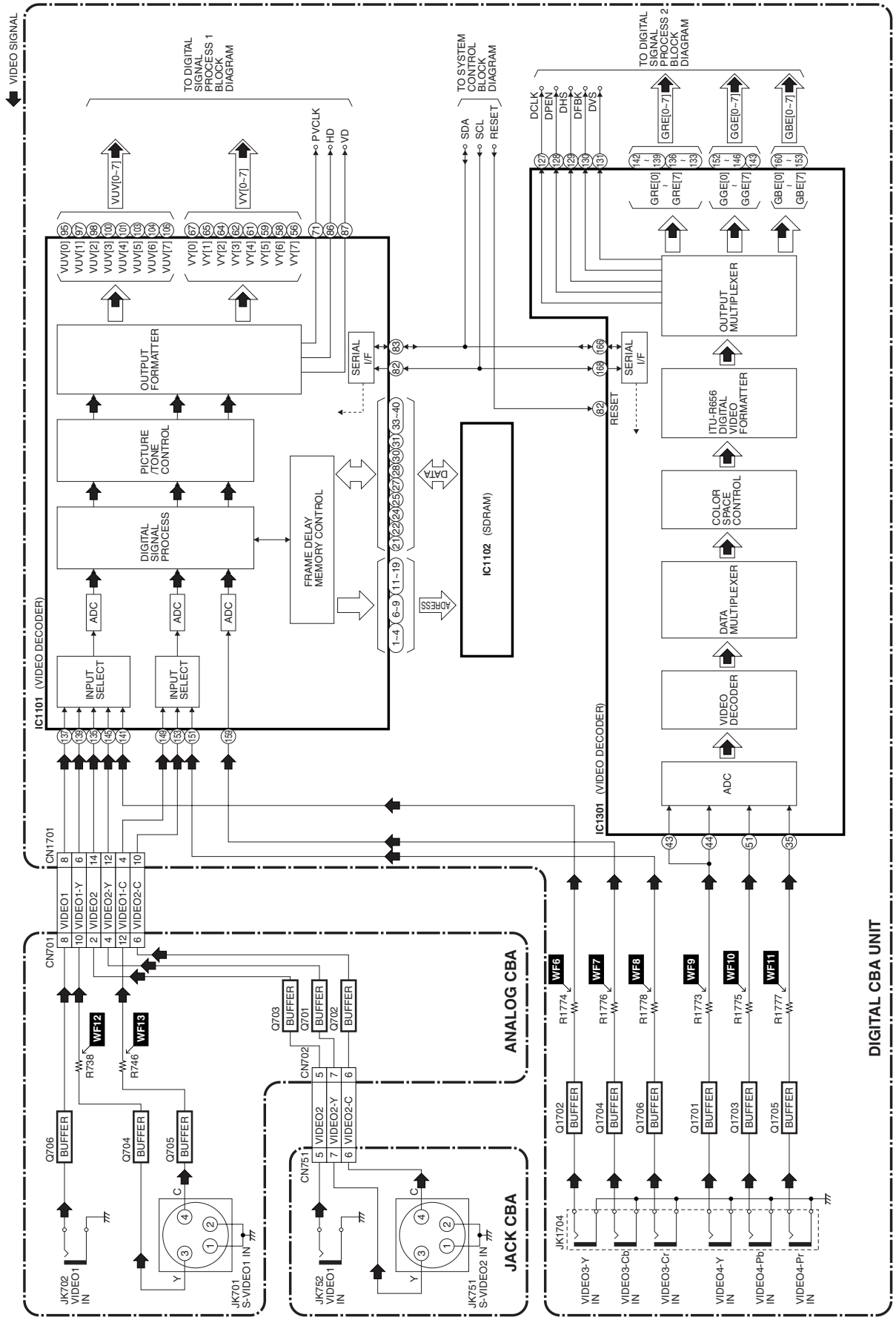
Check lines between Q707 and JK703, between Q708 and JK703 and service it if defective.

BLOCK DIAGRAMS

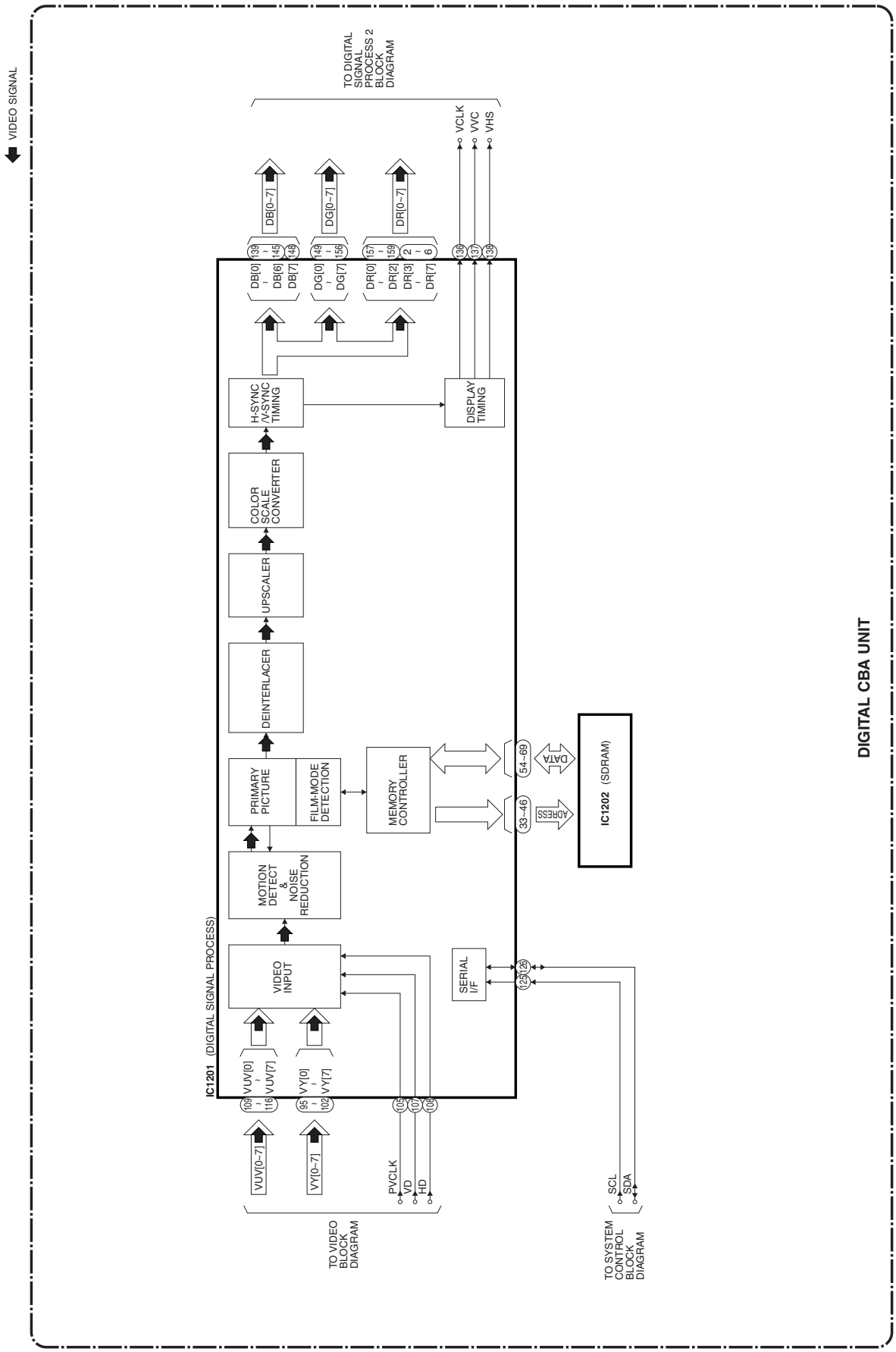
System Control Block Diagram



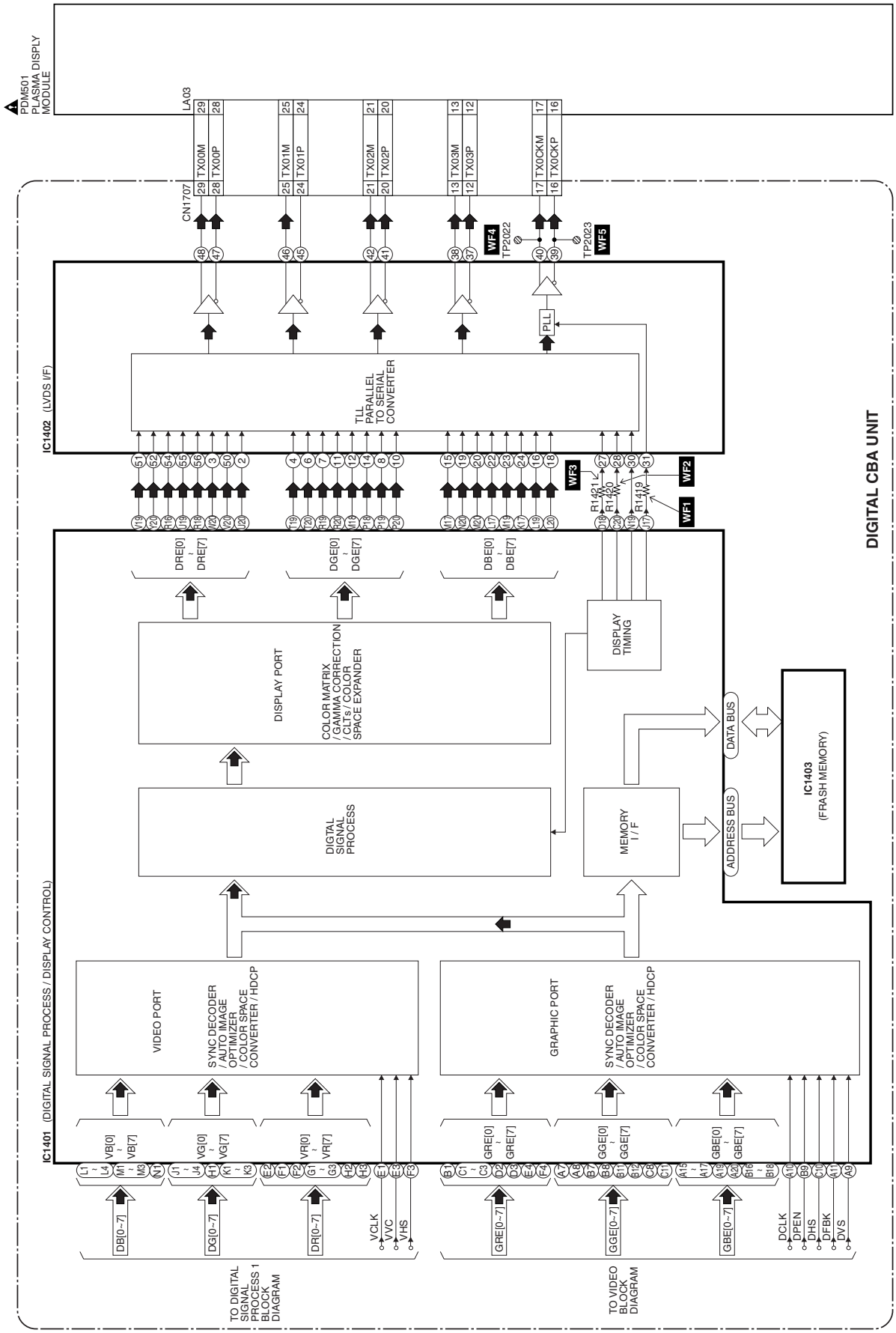
Video Block Diagram



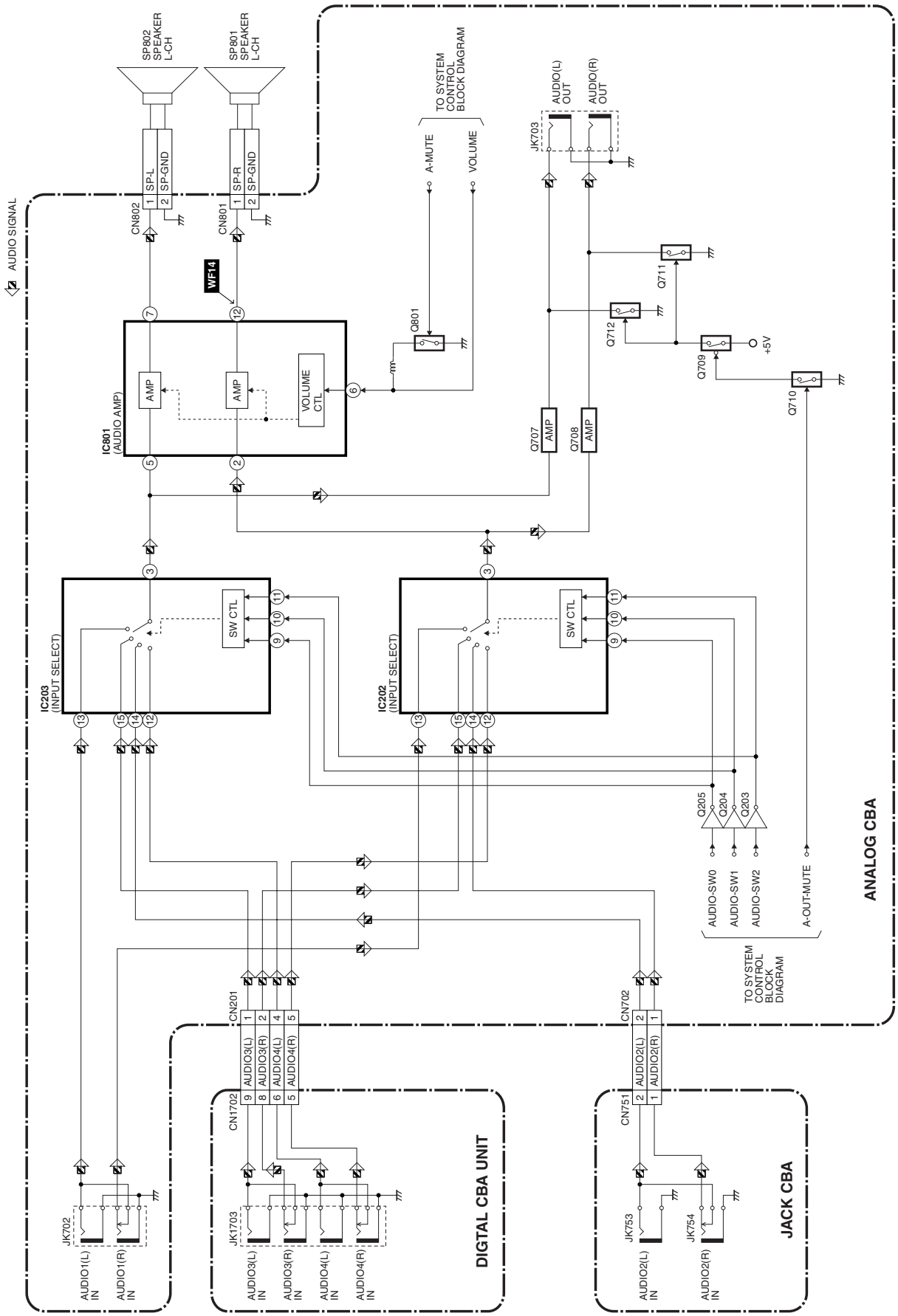
Digital Signal Process 1 Block Diagram



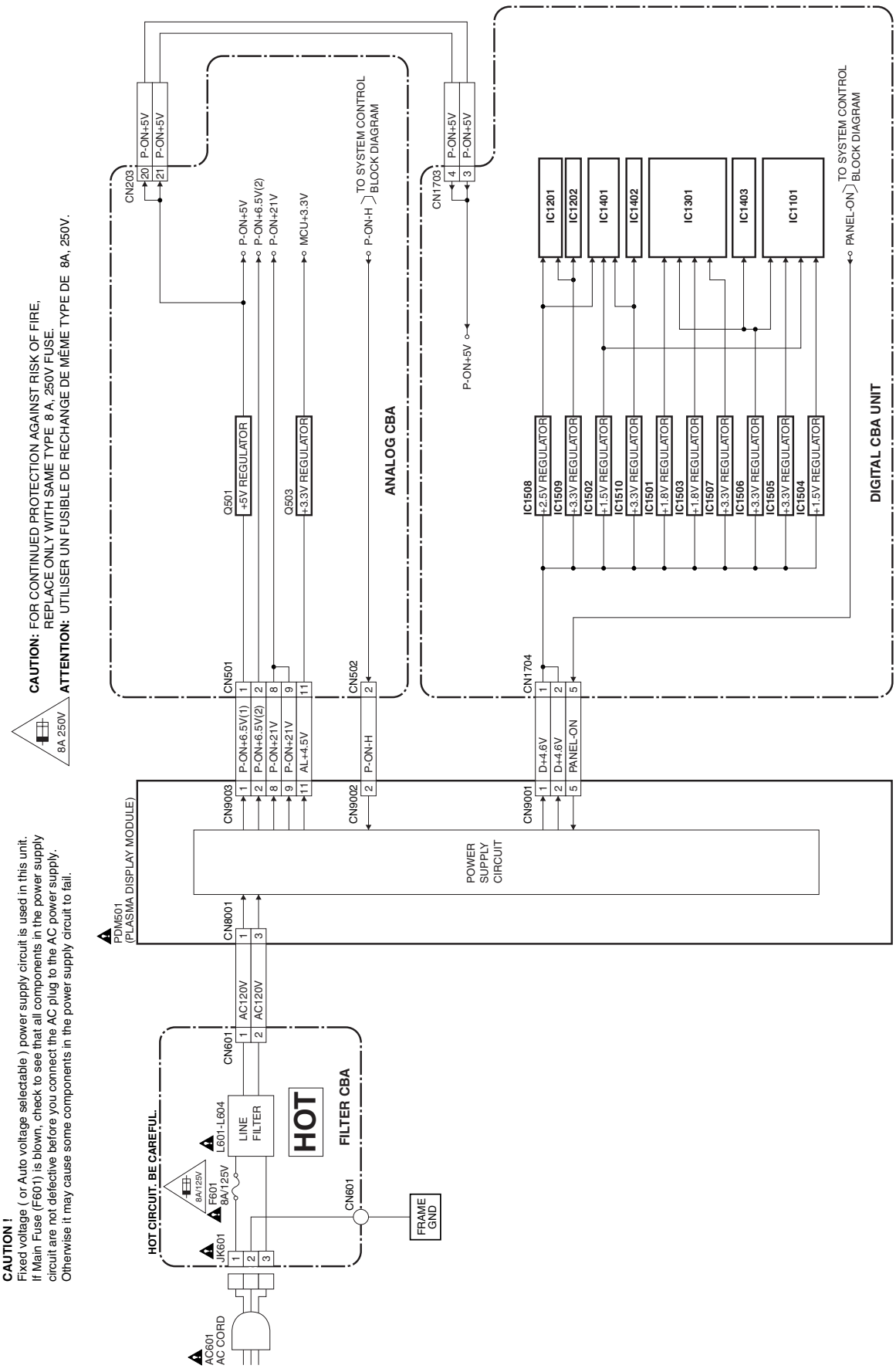
Digital Signal Process 2 Block Diagram



Audio Block Diagram



Power Supply Block Diagram



SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark " ⚠ " in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Note:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K=10^3$, $M=10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in µF ($P=10^{-6}$µF).
5. All voltages are DC voltages unless otherwise specified.

Note of Capacitors:

ML --- Mylar Cap. PP --- Metallized Film Cap. SC --- Semiconductor Cap. L --- Low Leakage type

Temperature Characteristics of Capacitors are noted with the following:

B --- ±10% CH --- 0±60ppm/°C CSL --- +350~-1000ppm/°C

Tolerance of Capacitors are noted with the following:

Z --- +80~-20%

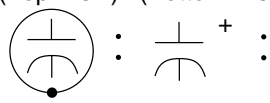
Note of Resistors:

CEM --- Cement Res. MTL --- Metal Res. F --- Fuse Res.

Capacitors and transistors are represented by the following symbols.

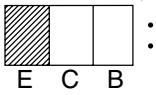
CBA Symbols

(Top View) (Bottom View)



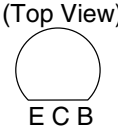
Electrolytic Capacitor

(Bottom View)



Transistor or Digital Transistor

(Top View)

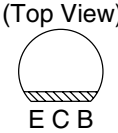


NPN Transistor

(Top View)

PNP Transistor

(Top View)



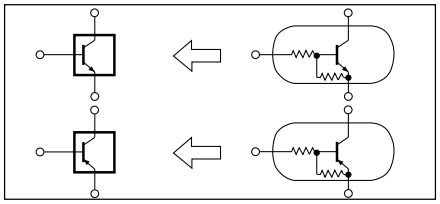
NPN Digital Transistor

(Top View)

PNP Digital Transistor

Schematic Diagram Symbols

Digital Transistor



LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE_A,_V FUSE.
ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE_A,_V.

2. CAUTION:

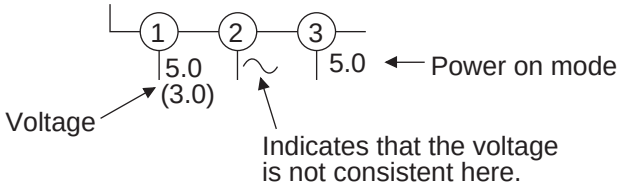
Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

(1) Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.

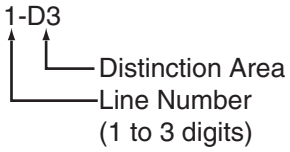
(2) To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Voltage indications on the schematics are as shown below:
Plug the TV power cord into a standard AC outlet.:

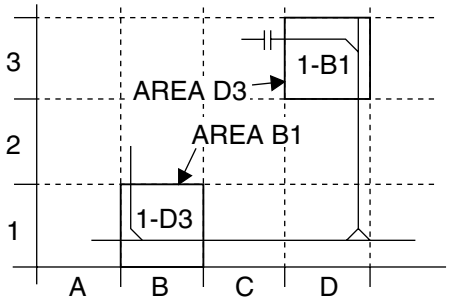


Unit: Volts

5. How to read converged lines



Examples:
1. "1-D3" means that line number "1" goes to area "D3".
2. "1-B1" means that line number "1" goes to area "B1".



6. Test Point Information

: Indicates a test point with a jumper wire across a hole in the PCB.

: Used to indicate a test point with a component lead on foil side.

: Used to indicate a test point with no test pin.

: Used to indicate a test point with a test pin.

Digital 1/5 Schematic Diagram

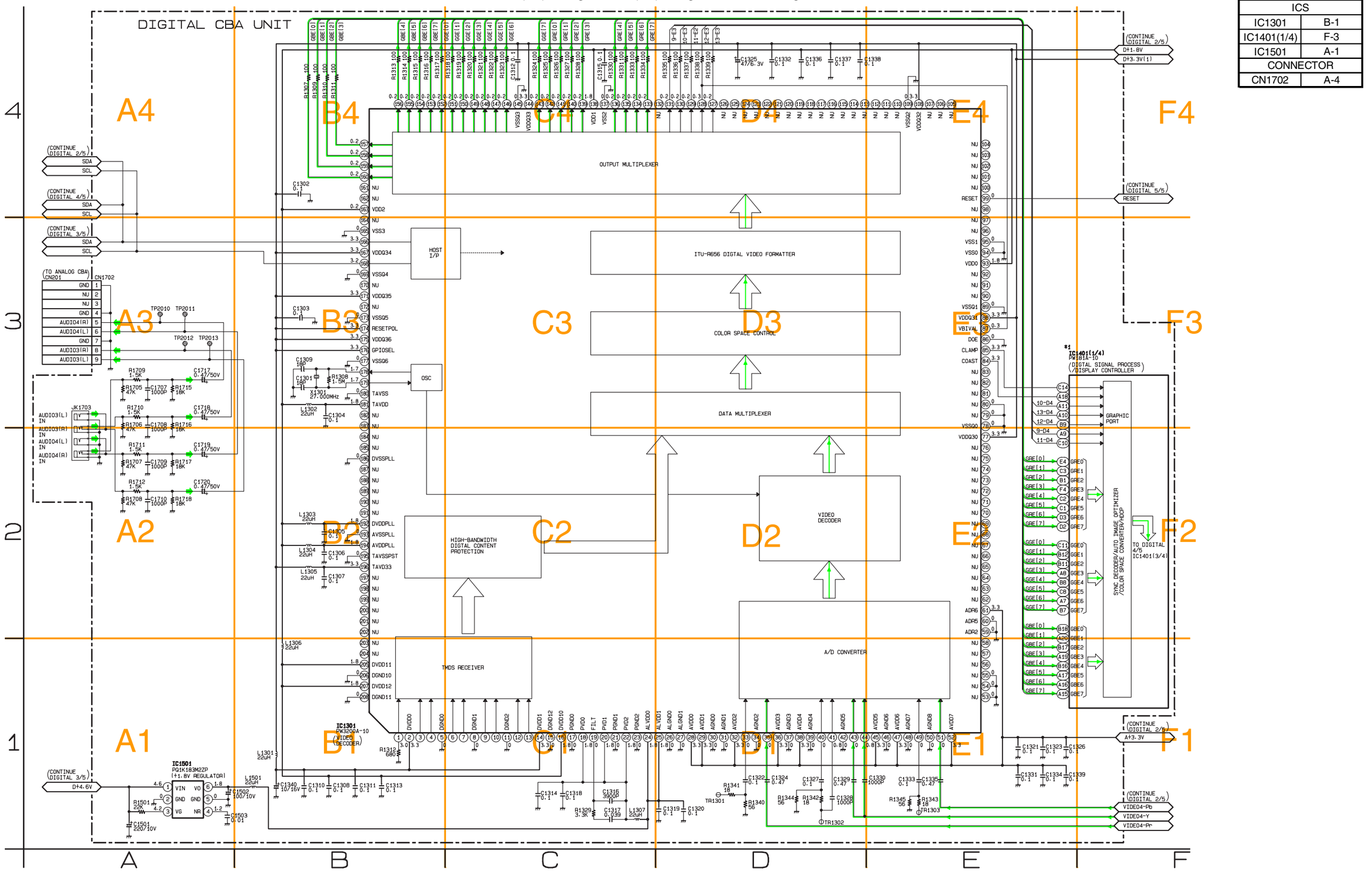
***1 Note:**

1. The order of pins shown are different from that of IC1401 itself.
2. Some pins are not shown because they are not used.
3. IC1401 is shown as IC1401(1/4) through IC1401(4/4) in Digital Schematic Diagram section.

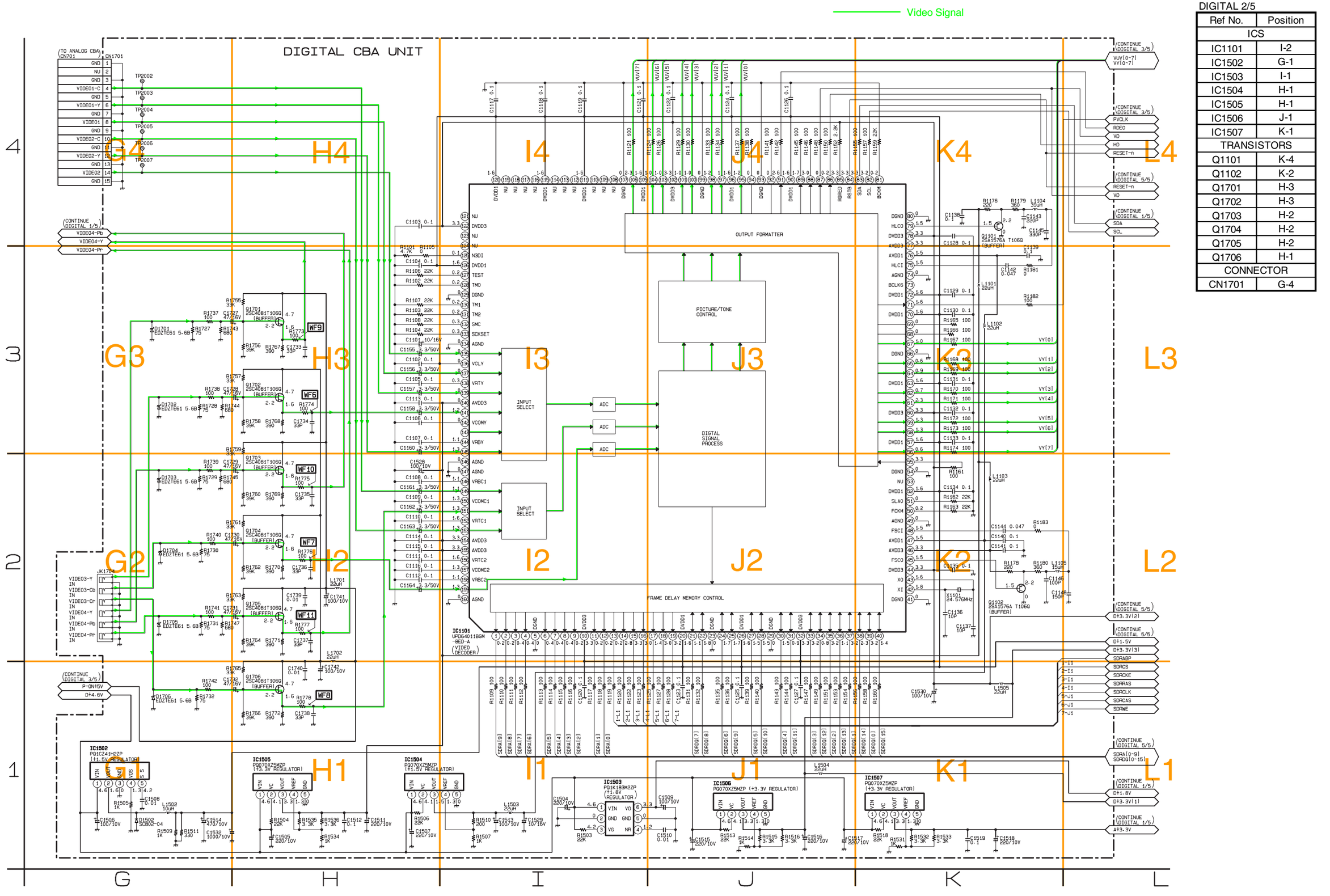
Video Signal Audio Signal

DIGITAL 1/5

Ref No.	Position
ICS	
IC1301	B-1
IC1401(1/4)	F-3
IC1501	A-1
CONNECTOR	
CN1702	A-4



Digital 2/5 Schematic Diagram



DIGITAL 2/5

Ref No.	Position
ICS	
IC1101	I-2
IC1502	G-1
IC1503	I-1
IC1504	H-1
IC1505	H-1
IC1506	J-1
IC1507	K-1
TRANSISTORS	
Q1101	K-4
Q1102	K-2
Q1701	H-3
Q1702	H-3
Q1703	H-2
Q1704	H-2
Q1705	H-2
Q1706	H-1
CONNECTOR	
CN1701	G-4

Digital 3/5 Schematic Diagram

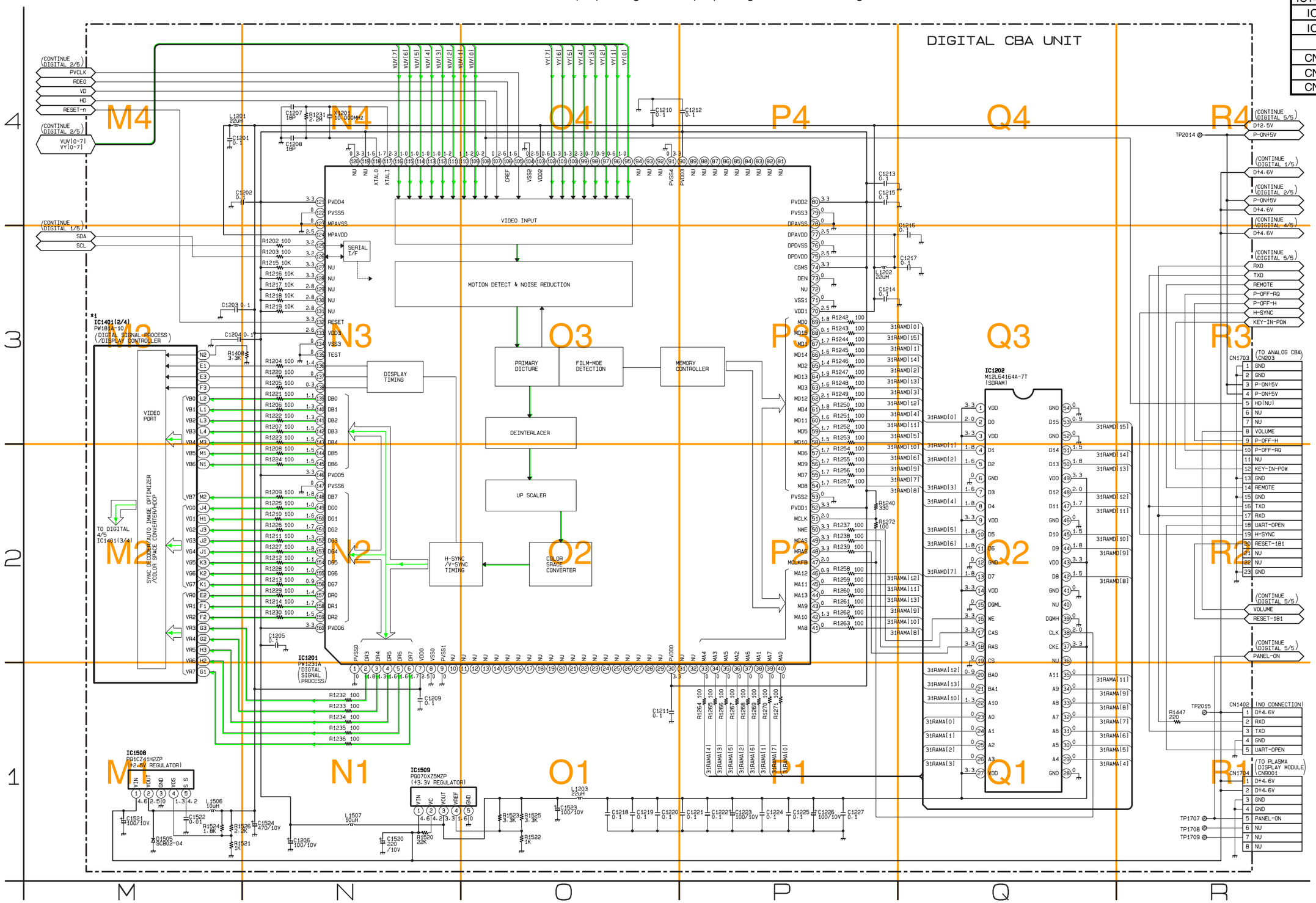
***1 Note:**

1. The order of pins shown are different from that of IC1401 itself.
2. Some pins are not shown because they are not used.
3. IC1401 is shown as IC1401(1/4) through IC1401(4/4) in Digital Schematic Diagram section.

Video Signal

DIGITAL 3/5

Ref No.	Position
ICS	
IC1201	N-2
IC1202	Q-3
IC1401(2/4)	M-3
IC1508	M-1
IC1509	N-1
CONNECTOR	
CN1402	R-1
CN1703	R-3
CN1704	R-1



Digital 4/5 Schematic Diagram

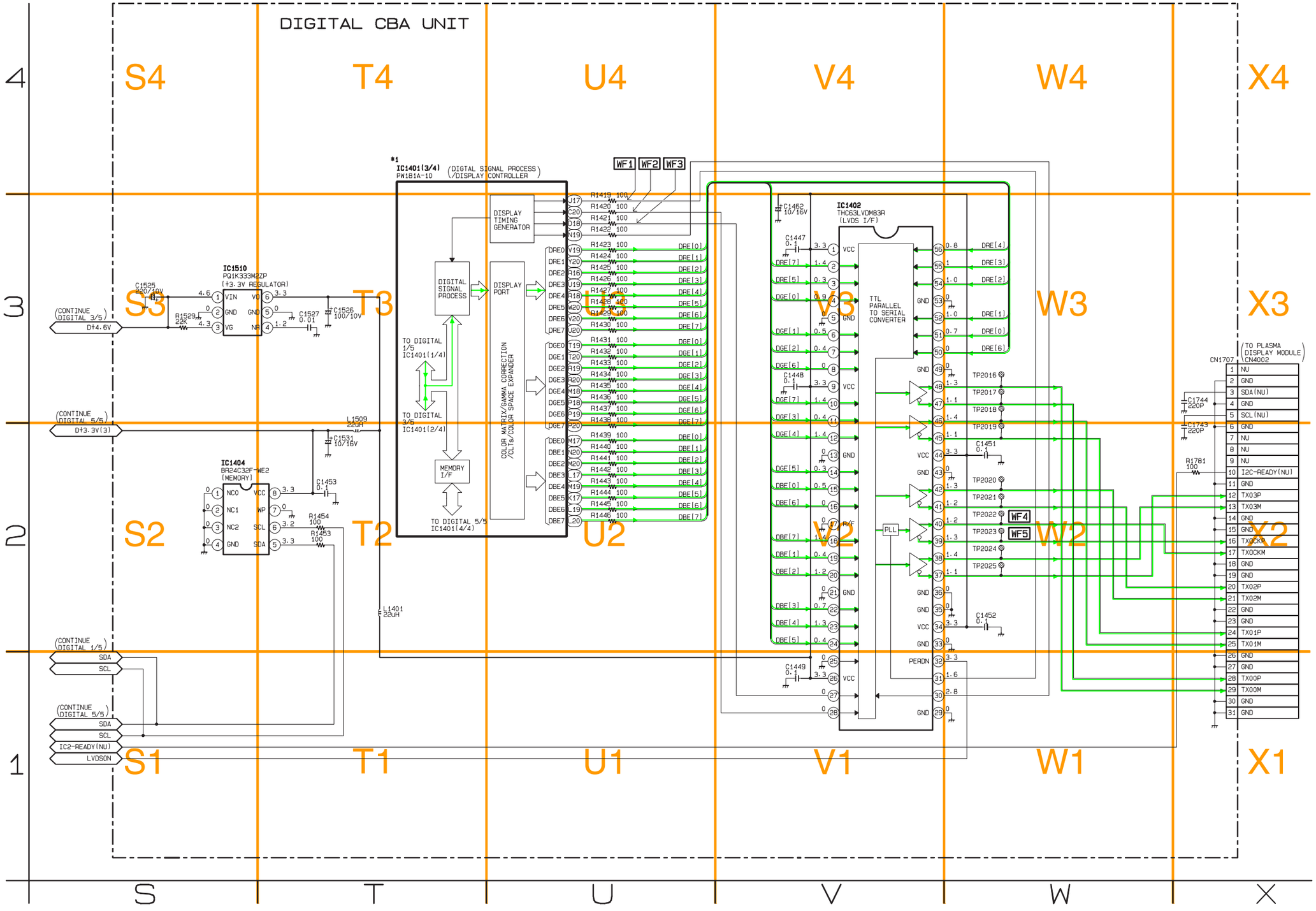
***1 Note:**

1. The order of pins shown are different from that of IC1401 itself.
2. Some pins are not shown because they are not used.
3. IC1401 is shown as IC1401(1/4) through IC1401(4/4) in Digital Schematic Diagram section.

Video Signal

DIGITAL 4/5

Ref No.	Position
ICS	
IC1401(3/4)	T-4
IC1402	V-3
IC1404	S-2
IC1510	S-3
CONNECTOR	
CN1707	X-3



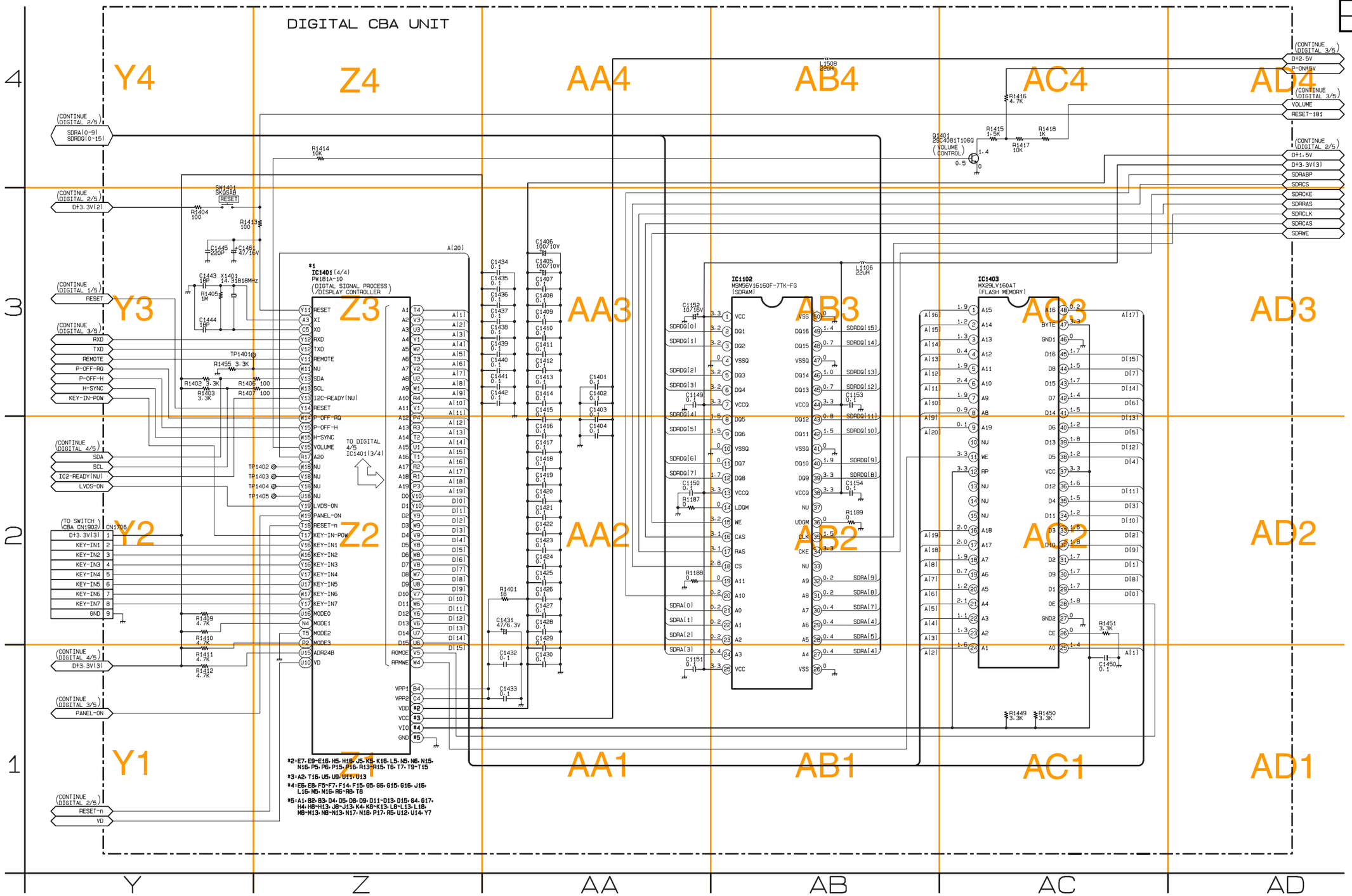
Digital 5/5 Schematic Diagram

***1 Note:**

1. The order of pins shown are different from that of IC1401 itself.
2. Some pins are not shown because they are not used.
3. IC1401 is shown as IC1401(1/4) through IC1401(4/4) in Digital Schematic Diagram section.

DIGITAL 5/5

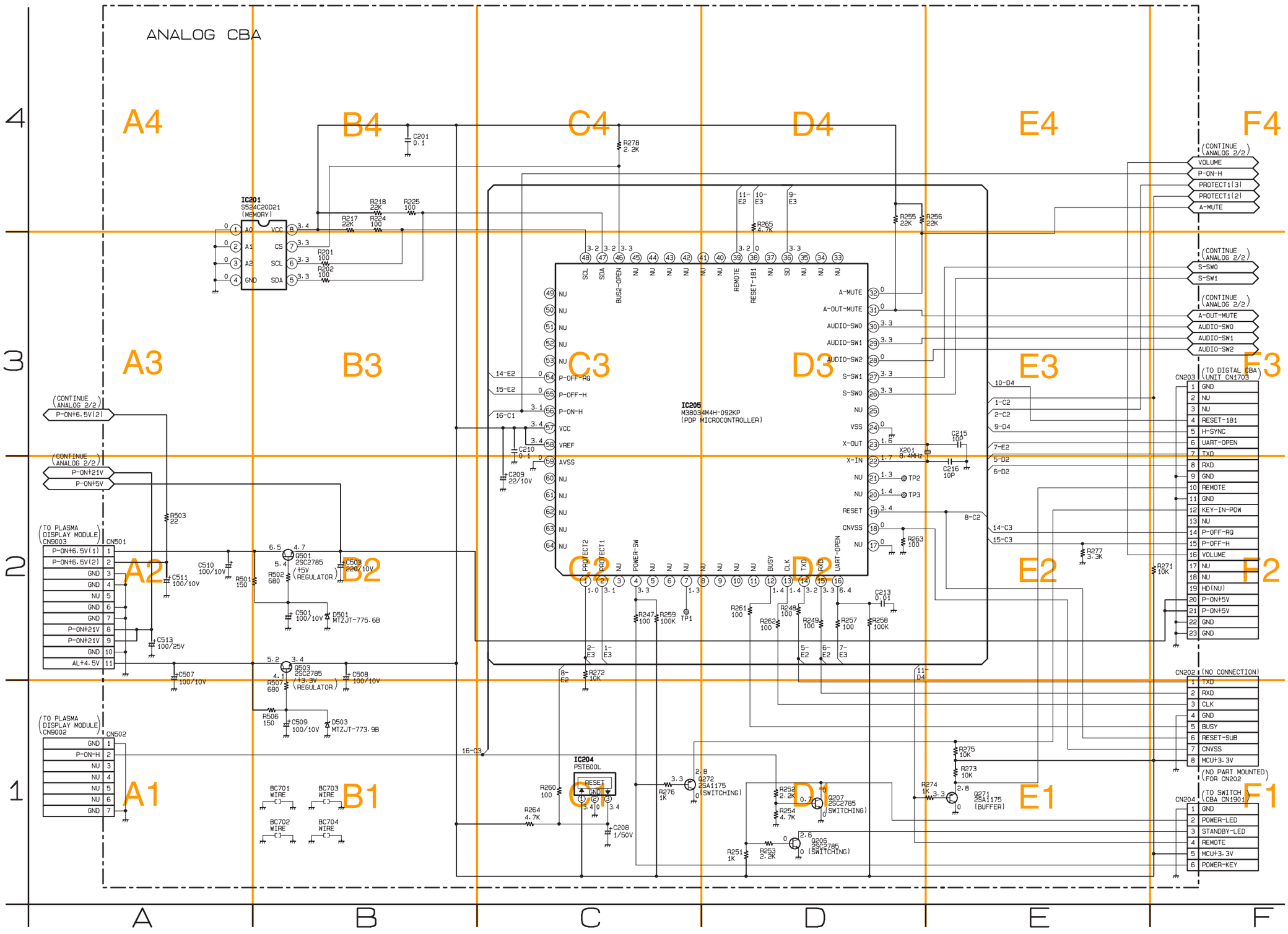
Ref No.	Position
ICS	
IC1102	AB-3
IC1401(4/4)	Z-3
IC1403	AC-3
TRANSISTOR	
Q1401	AC-4
CONNECTOR	
CN1706	Y-2



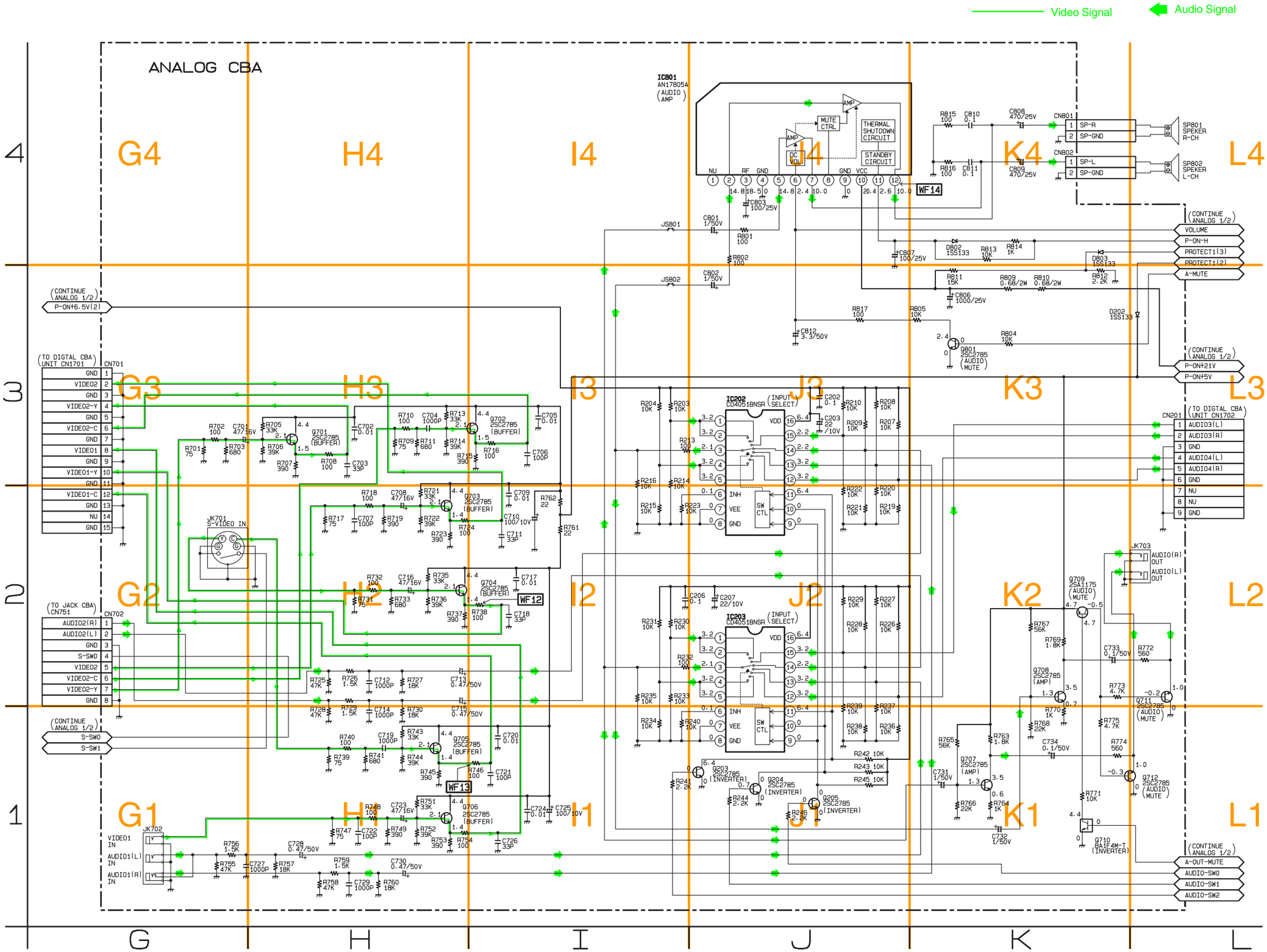
Analog 1/2 Schematic Diagram

ANALOG 1/2

Ref No.	Position
ICS	
IC201	B-4
IC204	C-1
IC205	D-3
TRANSISTORS	
Q206	D-1
Q207	D-1
Q271	E-1
Q272	D-1
Q501	B-1
Q503	B-1
CONNECTORS	
CN202	F-2
CN203	F-3
CN204	F-1
CN501	A-2
CN502	A-1



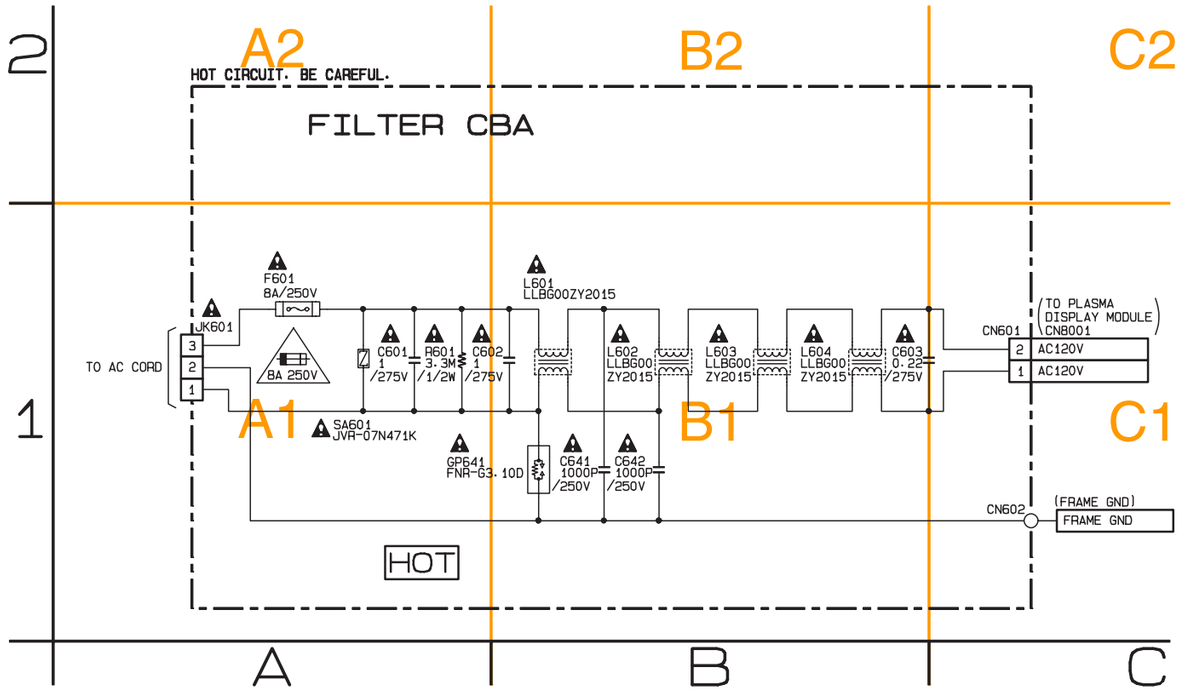
Analog 2/2 Schematic Diagram



ANALOG 2/2

Ref No.	Position
ICS	
IC202	J-3
IC203	J-2
IC801	J-4
TRANSISTORS	
Q203	J-1
Q204	J-1
Q205	J-1
Q701	H-3
Q702	I-3
Q703	H-2
Q704	H-2
Q705	H-1
Q706	H-1
Q707	K-1
Q708	K-2
Q709	K-2
Q710	K-1
Q711	L-2
Q712	L-1
Q801	K-3
CONNECTOR	
CN201	L-3
CN701	G-3
CN702	G-2
CN801	K-4
CN802	K-4

Filter Schematic Diagram

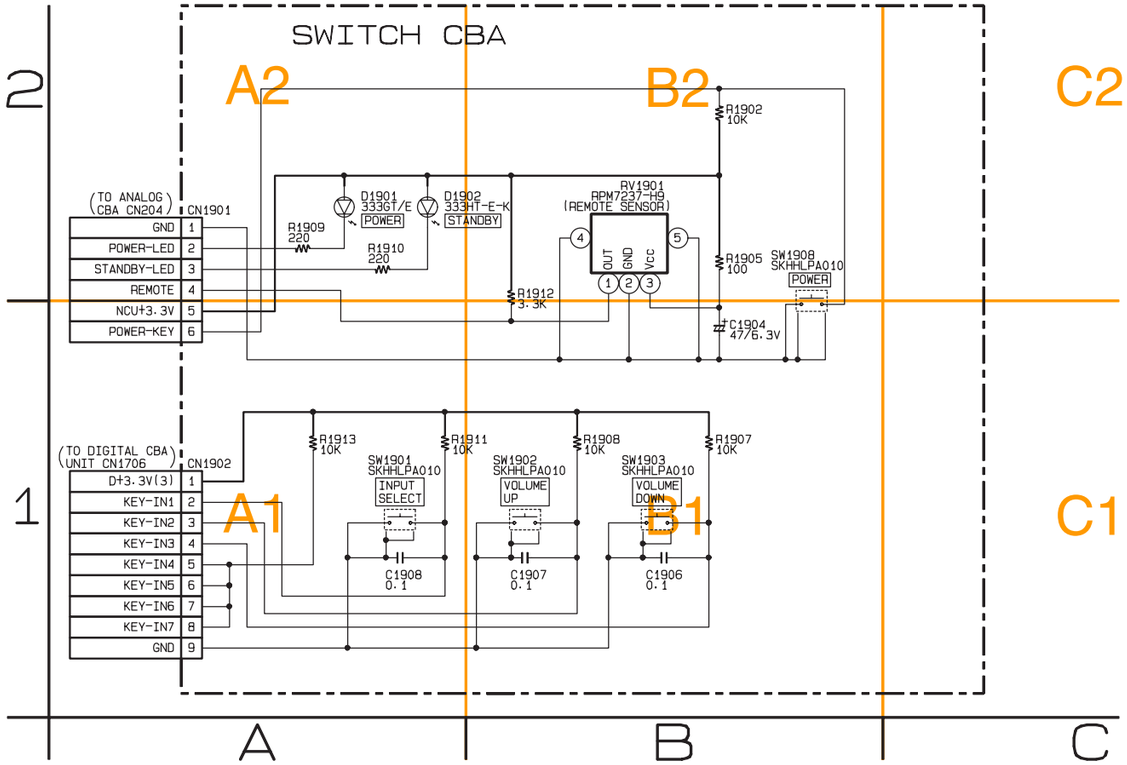


L0604SCF

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

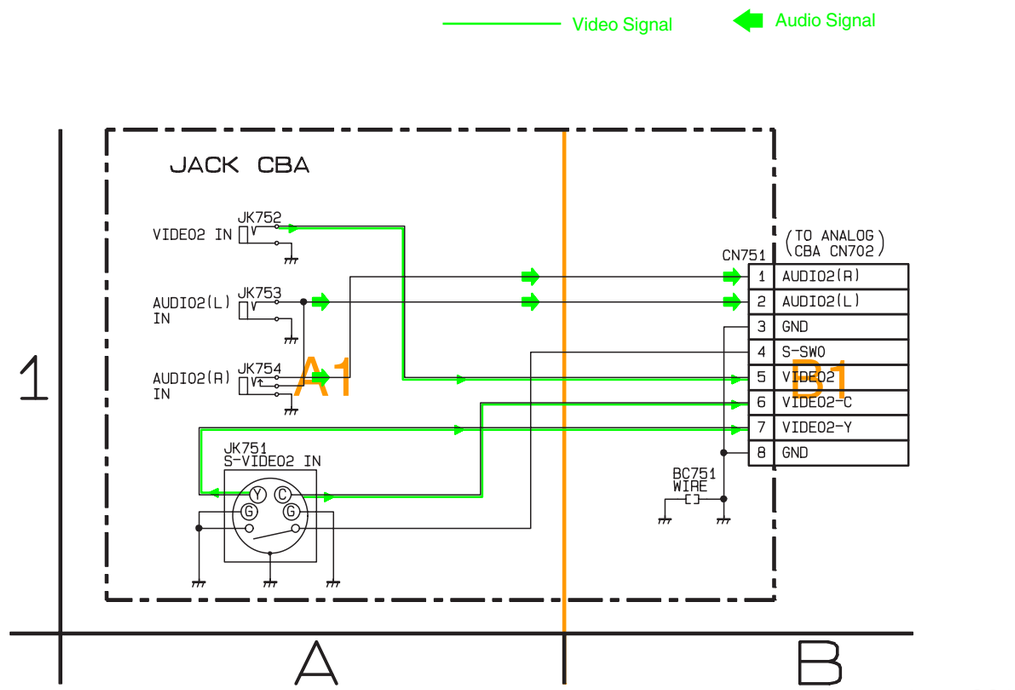
CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 8A, 250V FUSE.
ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE 8A, 250V.

Switch Schematic Diagram



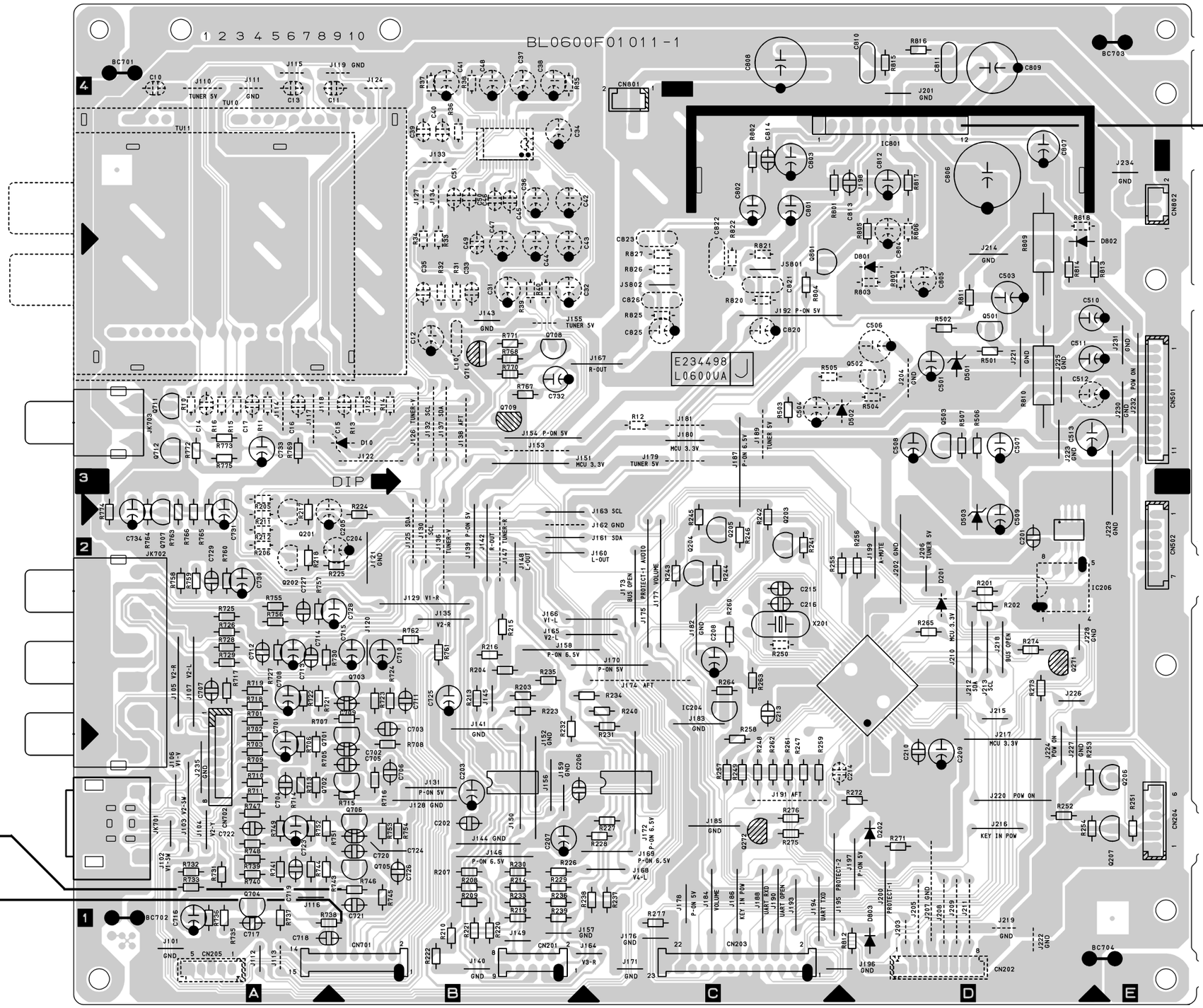
L0604SCSW

Jack Schematic Diagram



L0604SCJ

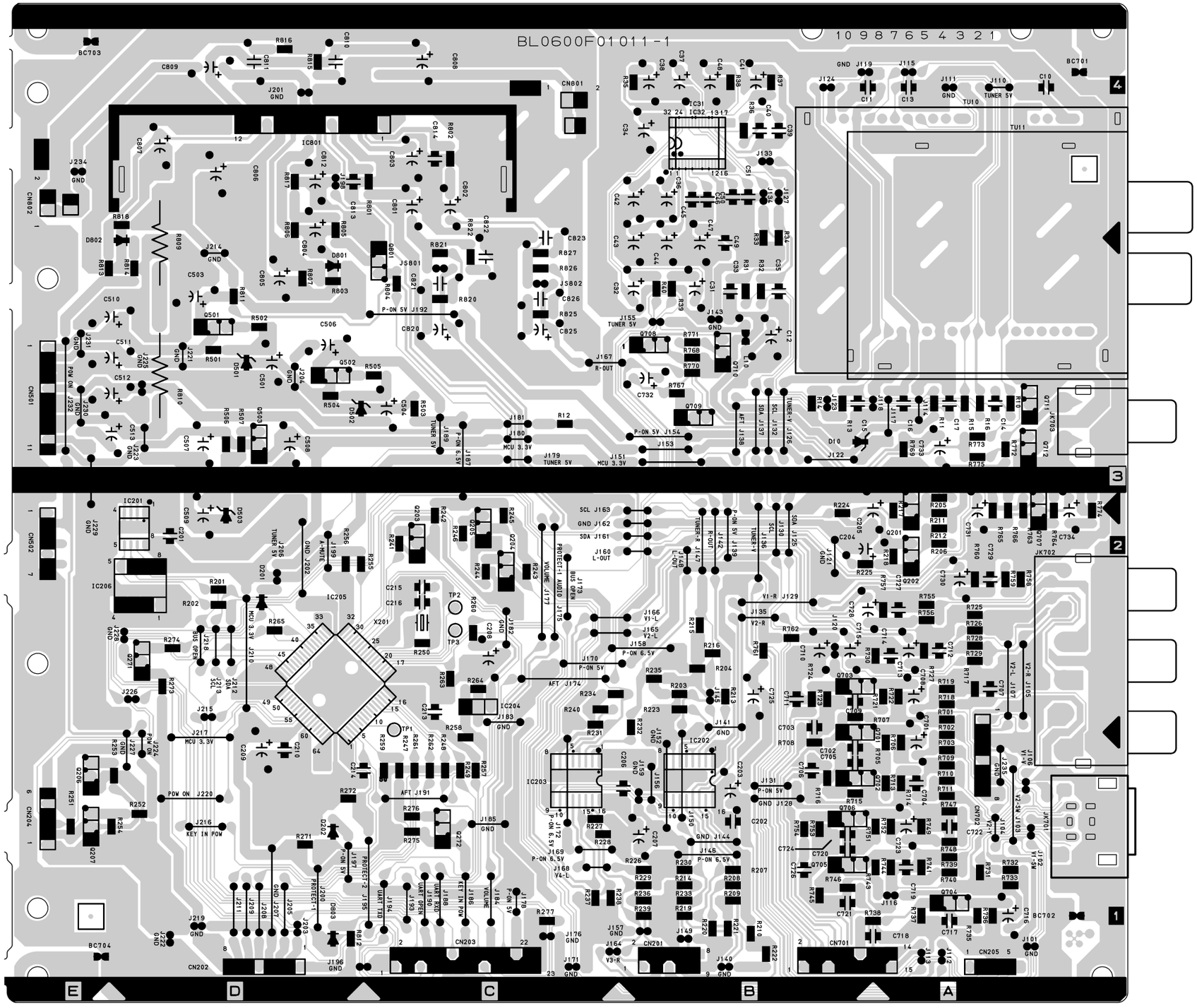
Analog CBA Top View



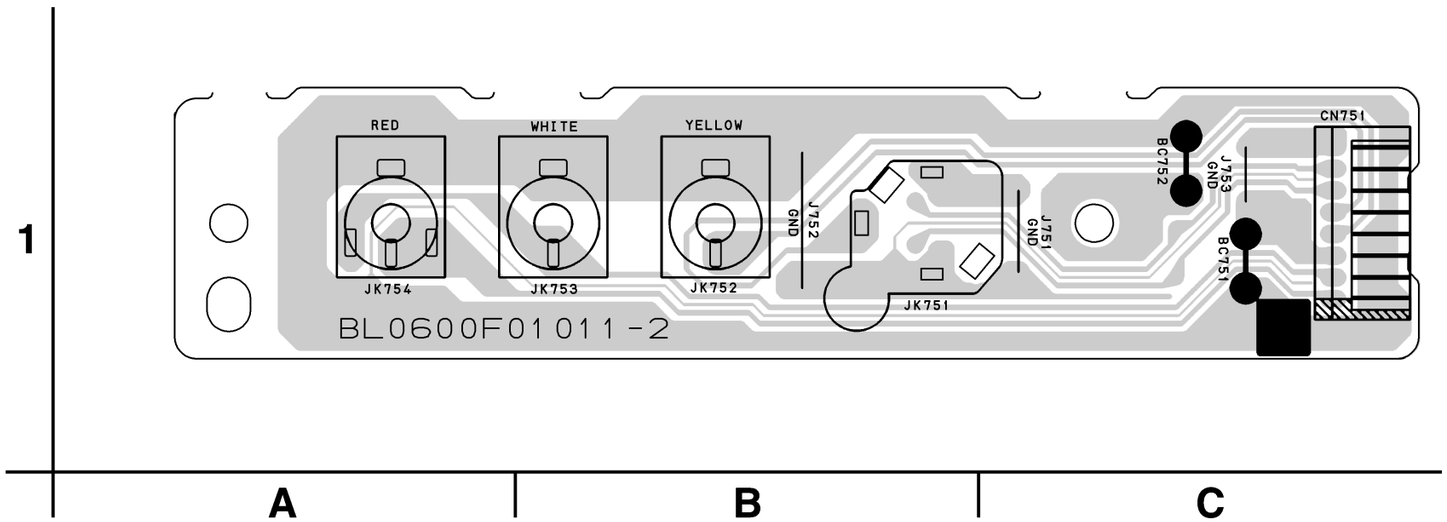
ANALOG CBA

Ref No.	Position
ICS	
IC201	D-3
IC202	B-1
IC203	C-1
IC204	C-2
IC205	D-2
IC801	D-4
TRANSISTORS	
Q203	C-2
Q204	C-2
Q205	C-2
Q206	E-1
Q207	E-1
Q271	D-2
Q272	C-1
Q501	D-3
Q503	D-3
Q701	A-2
Q702	A-1
Q703	B-2
Q704	A-1
Q705	B-1
Q706	B-1
Q707	A-2
Q708	B-3
Q709	B-3
Q710	B-3
Q711	A-3
Q712	A-3
Q801	C-3
CONNECTORS	
CN201	B-1
CN202	D-1
CN203	C-1
CN204	E-1
CN501	E-3
CN502	E-2
CN701	B-1
CN702	A-1
CN801	C-4
CN802	E-4

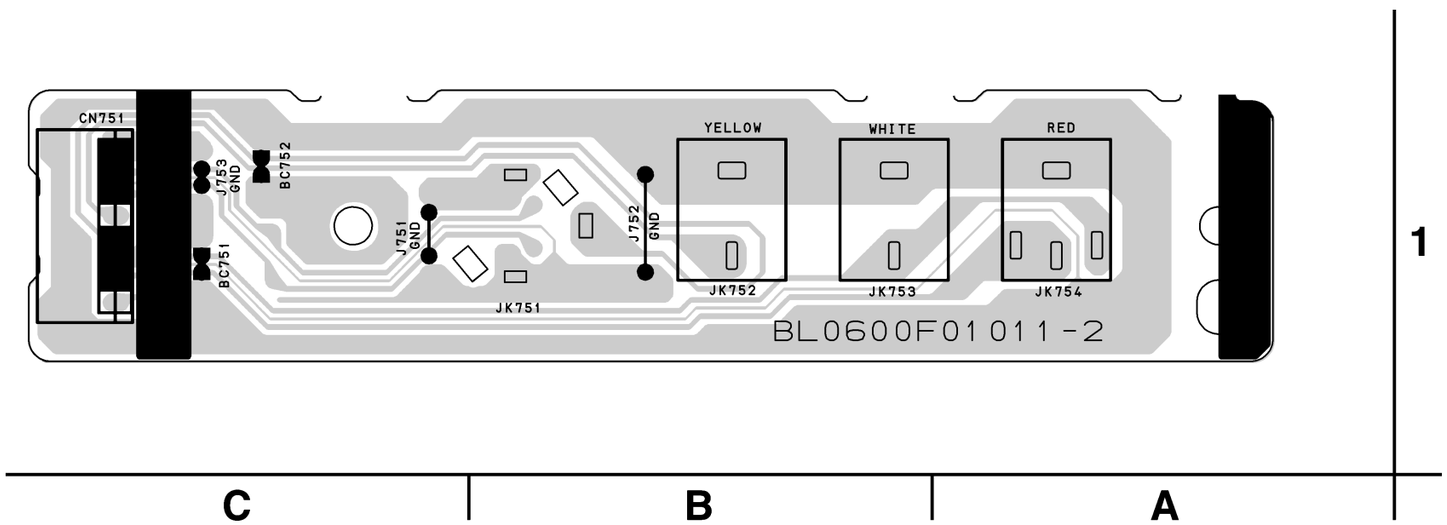
Analog CBA Bottom View



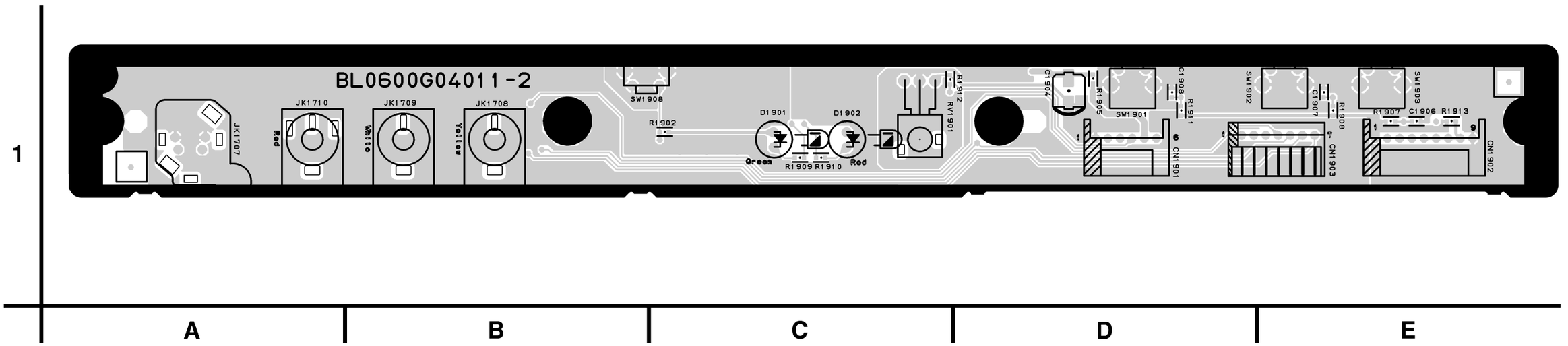
Jack CBA Top View



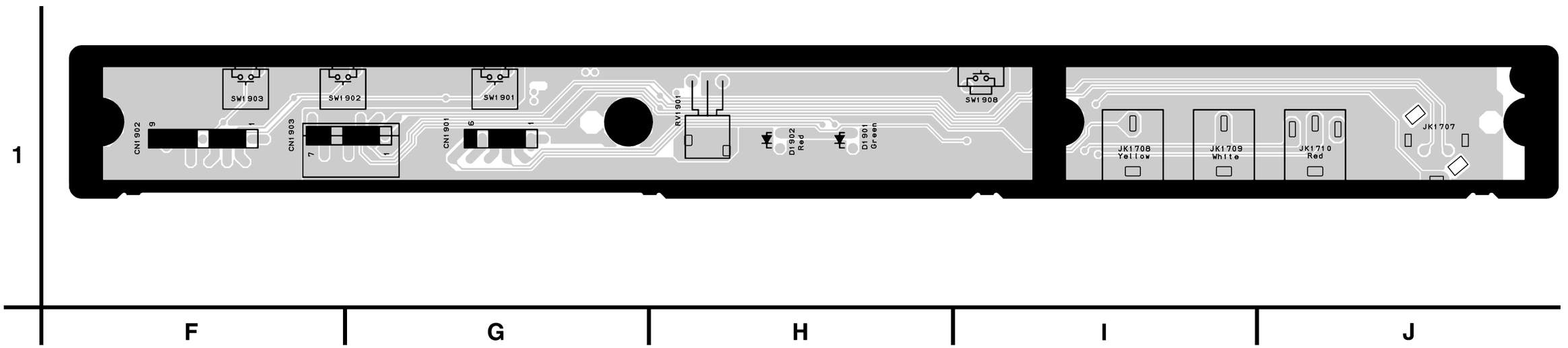
Jack CBA Bottom View



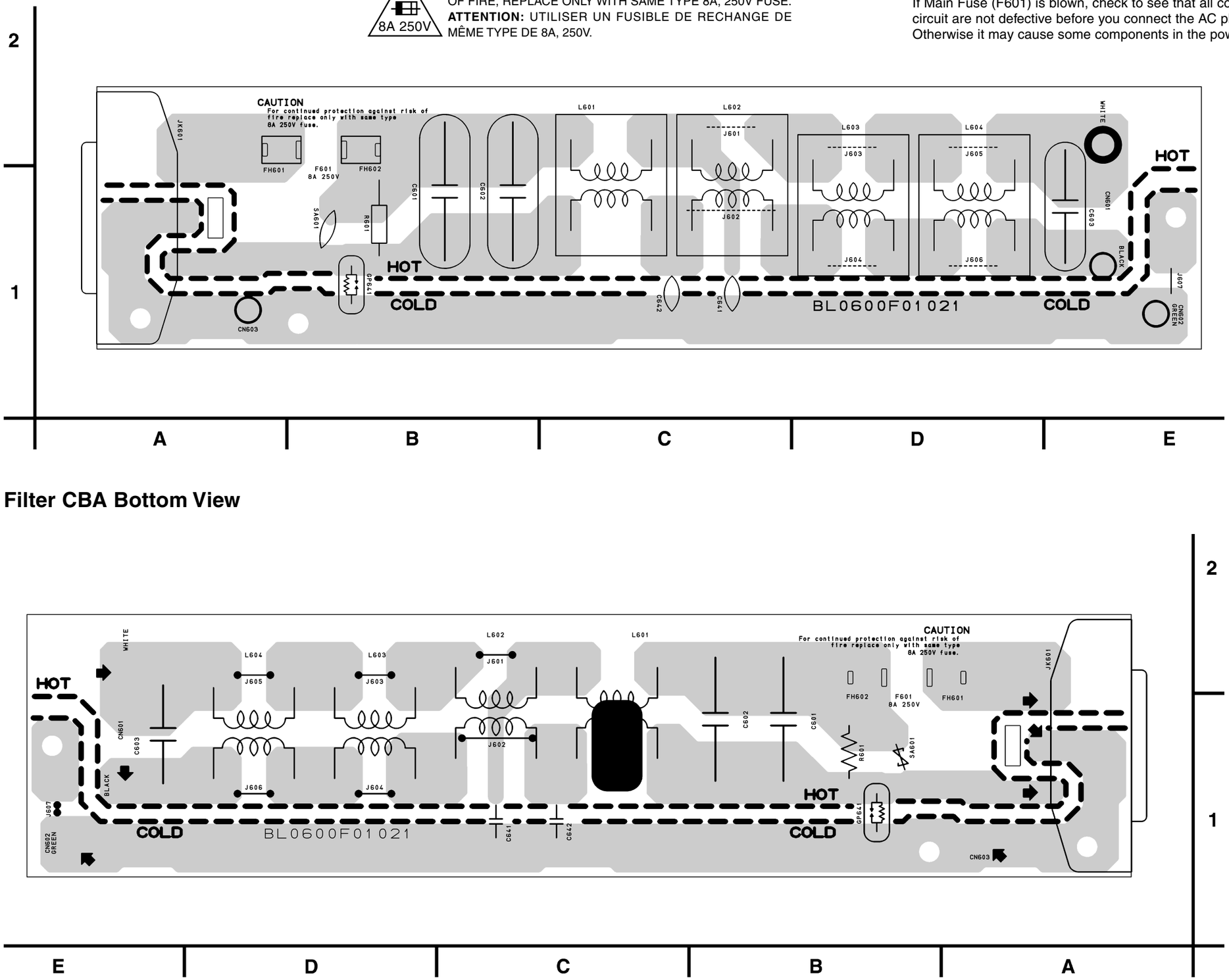
Switch CBA Top View



Switch CBA Bottom View

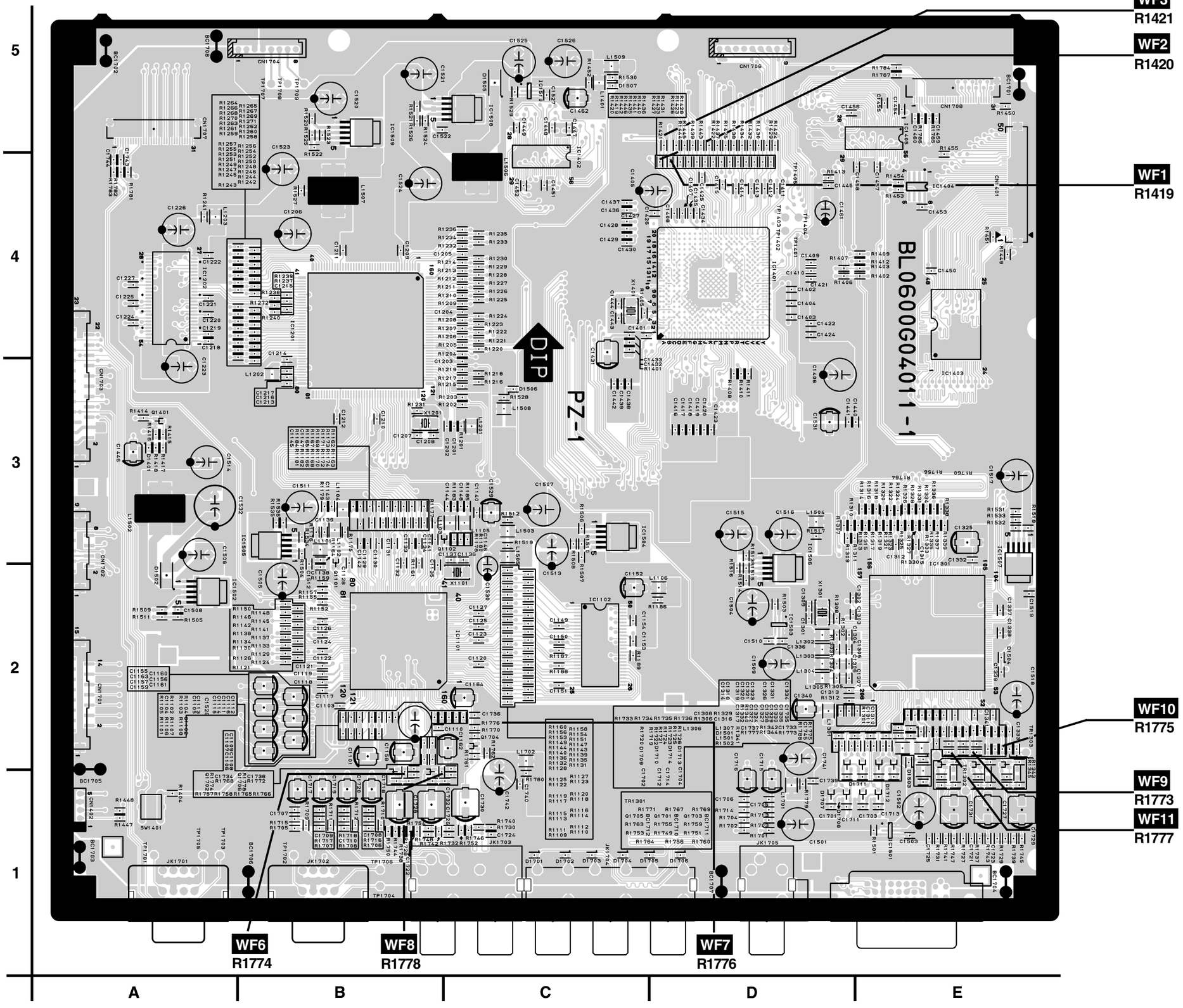


Filter CBA Top View



Filter CBA Bottom View

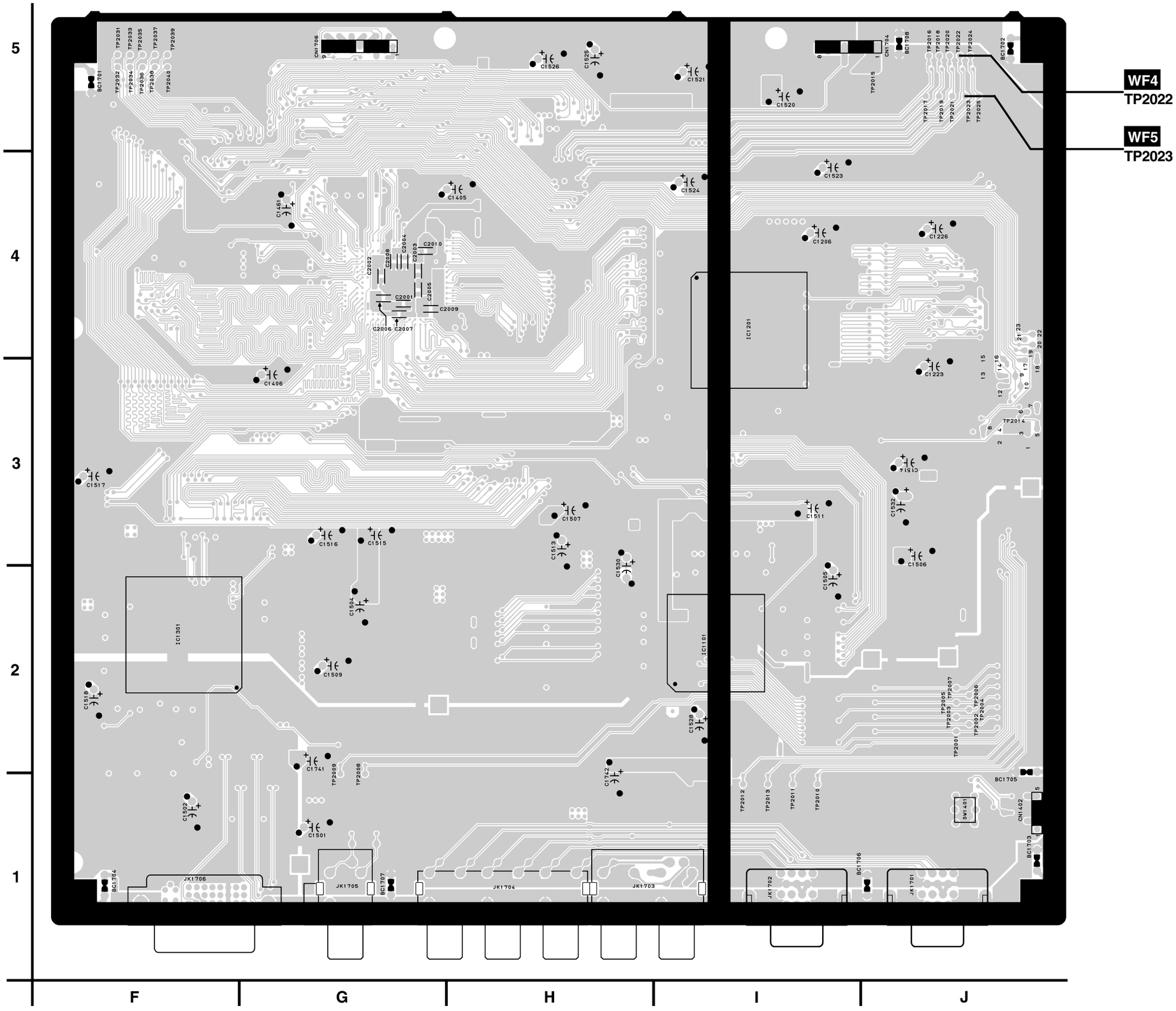
Digital CBA Top View



DIGITAL CBA

Ref No.	Position
ICS	
IC1101	C-2
IC1102	C-2
IC1201	B-4
IC1202	A-4
IC1301	E-2
IC1401	D-4
IC1402	C-4
IC1403	E-3
IC1404	E-4
IC1501	E-1
IC1502	A-2
IC1503	D-2
IC1504	C-3
IC1505	B-3
IC1506	D-3
IC1507	E-3
IC1508	C-5
IC1509	B-5
IC1510	C-5
TRANSISTORS	
Q1101	B-2
Q1102	B-3
Q1401	A-3
Q1701	D-1
Q1702	A-1
Q1703	D-1
Q1704	C-2
Q1705	C-1
Q1706	B-1
CONNECTORS	
CN1402	A-1
CN1701	A-2
CN1702	A-3
CN1703	A-3
CN1704	B-5
CN1706	D-5
CN1707	A-5

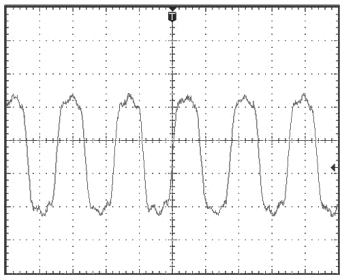
Digital CBA Bottom View



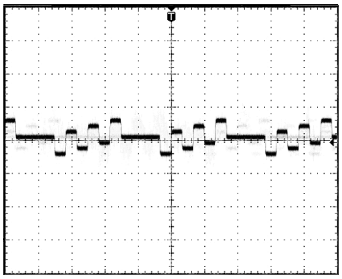
WAVEFORMS

WF1 ~ WF14 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

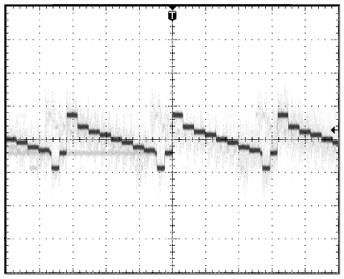
Input: NTSC Color Bar Signal (with 1kHz Audio Signal)



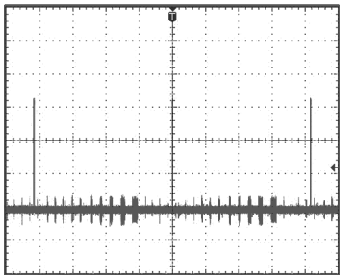
WF1 1DIV: 1.0V 20ns
R1419



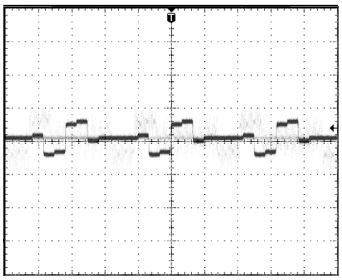
WF7 1DIV: 500mV 20µs
R1776



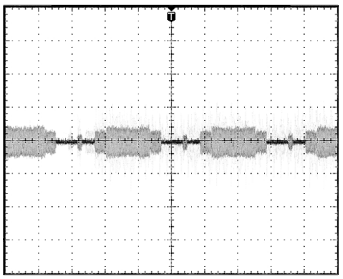
WF12 1DIV: 500mV 20µs
R738



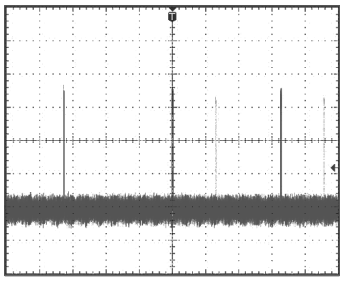
WF2 1DIV: 1.0V 4ms
R1420



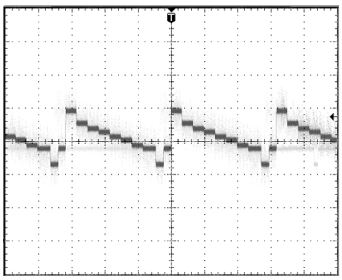
WF8 1DIV: 500mV 20µs
R1778



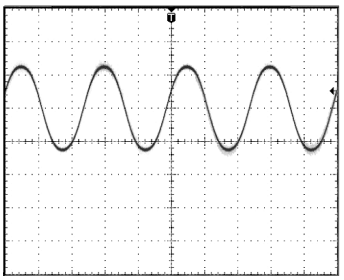
WF13 1DIV: 500mV 20µs
R746



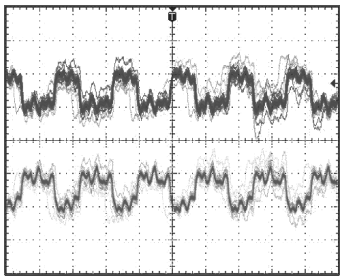
WF3 1DIV: 1.0V 10µs
R1421



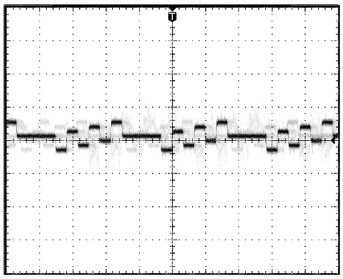
WF9 1DIV: 500mV 20µs
R1773



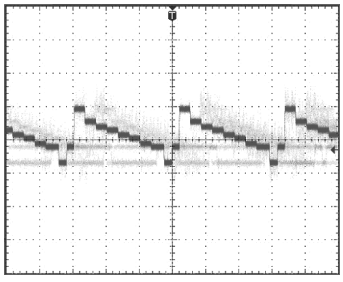
WF14 1DIV: 2V 400µs
Pin 12 of IC801



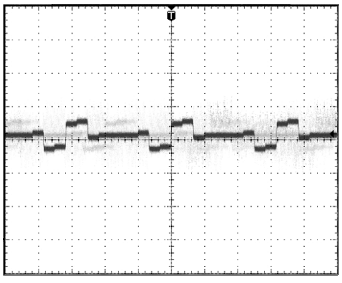
UPPER **WF4** TP2022
LOWER **WF5** TP2023
1DIV: 500mV 20ns



WF10 1DIV: 500mV 20µs
R1775

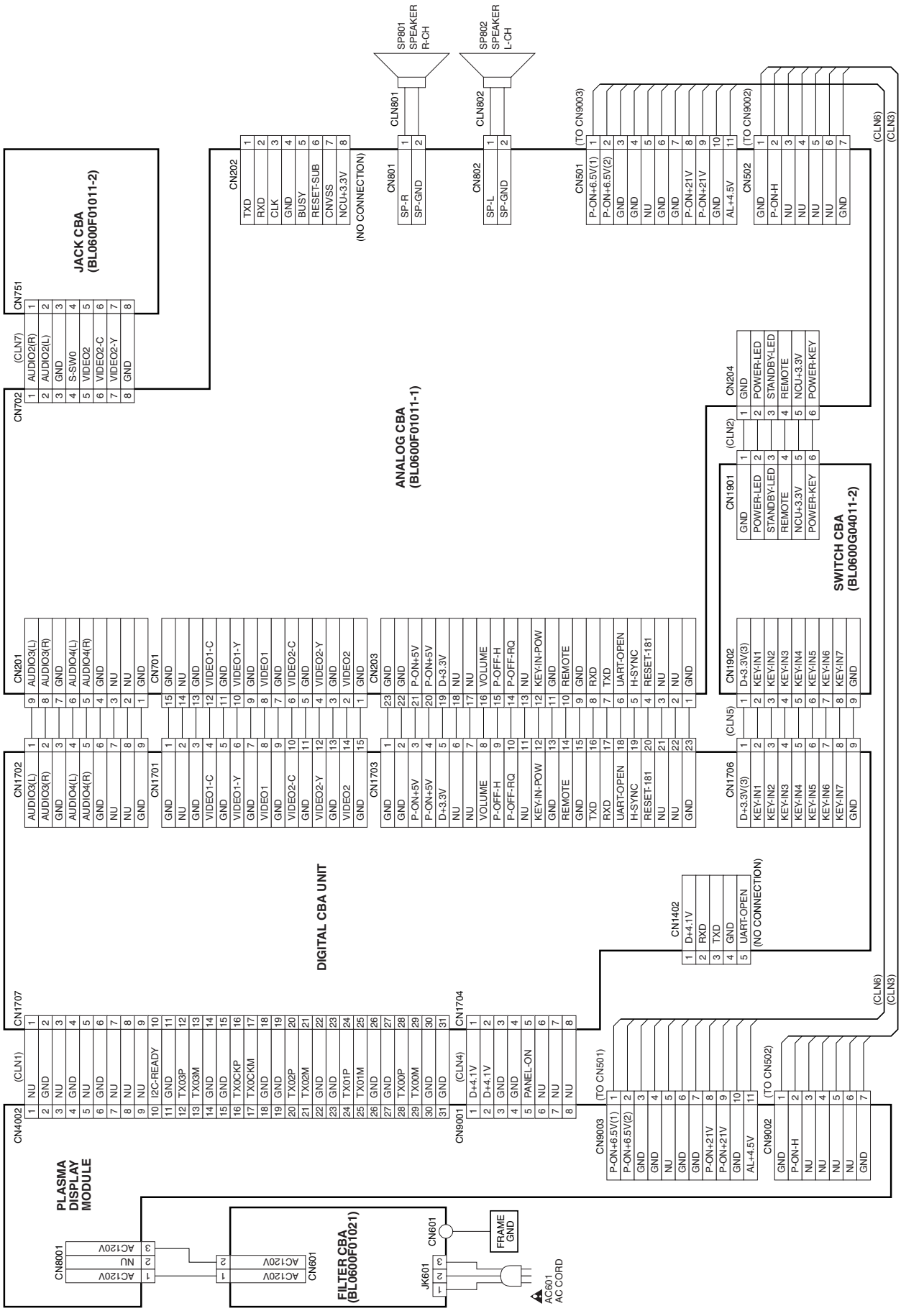


WF6 1DIV: 500mV 20µs
R1774



WF11 1DIV: 500mV 20µs
R1777

WIRING DIAGRAM

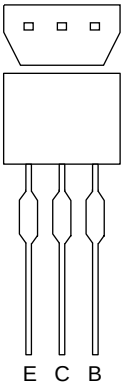


IC PIN FUNCTIONS

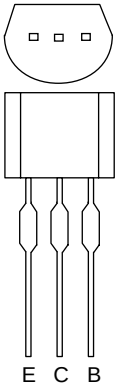
IC205 (PDP Micro Controller)

Pin No.	Signal Name	Function
1	PROTECT2	Power Supply Protection
2	PROTECT1	Power Supply Protection
3	NU	Not Used
4	POWER-SW	Power ON key
5	NU	Not Used
6	NU	Not Used
7	NU	Not Used
8	NU	Not Used
9	NU	Not Used
10	NU	Not Used
11	NU	Not Used
12	BUSY	Busy
13	CLK	Clock Input
14	TXD	Main/Sub processor interface transmit
15	RXD	Main/Sub processor interface receive
16	UART-OPEN	Main/Sub processor interface permit
17	NU	Not Used
18	CNVSS	Switching Chip Operation Mode
19	RESET	Input Reset Signal
20	NU	Not Used
21	NU	Not Used
22	X-IN	Clock Input
23	X-OUT	Clock Output
24	VSS	VSS
25	NU	Not Used
26	S-SW0	Detecting S-Video 0 Signal
27	S-SW1	Detecting S-Video 1 Signal
28	AUDIO-SW2	Switching Audio 2
29	AUDIO-SW1	Switching Audio 1
30	AUDIO-SW0	Switching Audio 0
31	A-OUT-MUTE	Mute Control
32	A-MUTE	Mute Control
33	NU	Not Used
34	NU	Not Used
35	NU	Not Used
36	SD	SD Detection
37	NU	Not Used
38	RESET-181	Reset PW181
39	REMOTE	Receive Remote
40	NU	Not Used
41	NU	Not Used
42	NU	Not Used
43	NU	Not Used
44	NU	Not Used
45	NU	Not Used
46	BUS2-OPEN	I2C Interface Permit
47	SDA	I2C-BUS Controller Interface (Data)
48	SCL	I2C-BUS Controller Interface (Clock)
49	NU	Not Used
50	NU	Not Used
51	NU	Not Used
52	NU	Not Used
53	NU	Not Used
54	P-OFF-RQ	Power OFF Request
55	P-OFF-H	Power OFF Detect
56	P-ON-H	Output for P-ON-H
57	VCC	VCC
58	VREF	Standard Voltage Input for Convert AD
59	AVSS	GND for Convert AD
60	NU	Not Used
61	NU	Not Used
62	NU	Not Used
63	NU	Not Used
64	P-DET	D+3.3V Power Detect

LEAD IDENTIFICATIONS

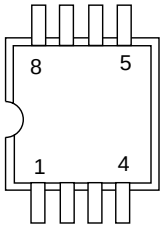


2SA1015-GR(TPE2)
2SA1175(F)
2SC2785(F)
KTA1267(GR)
BA1F4M-T
KRC103M
KTA1266(GR)
KTC3199(GR)

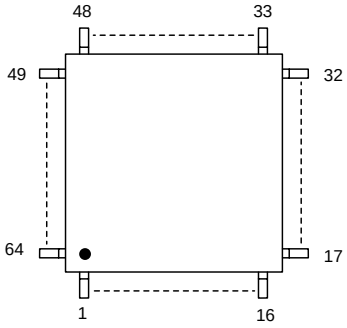


2SC1815-GR(TPE2)
KTC3198(GR)

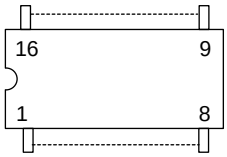
CAT24WC02JI
BR24C02F
BR24C02F-W
S524C20D21
M24C02-WMN6



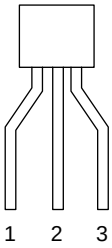
M38034M4H-092KP
M38034M4H-159KP



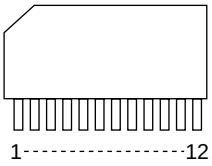
CD4051BNSR



PST600L



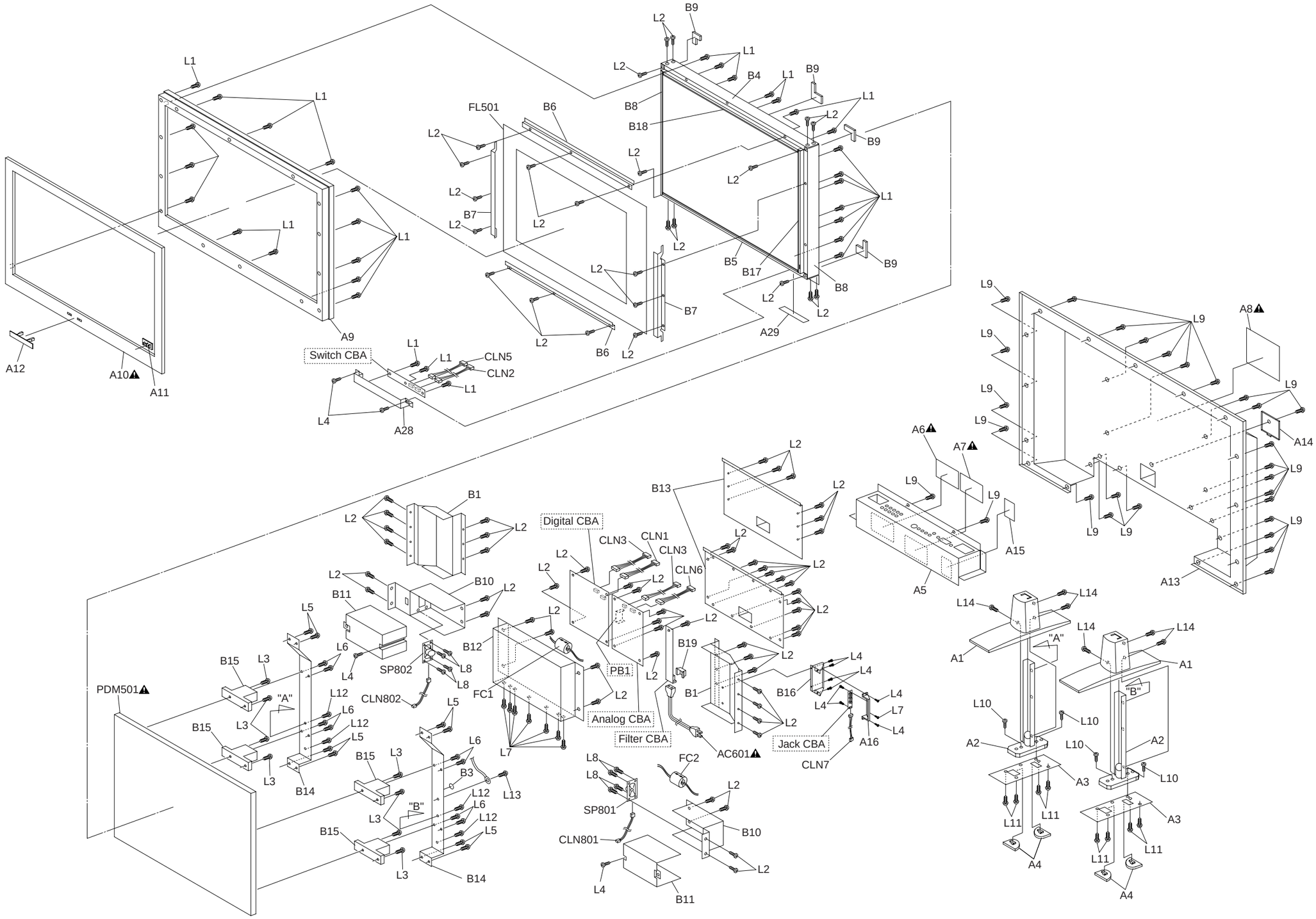
AN17805A



Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
S: Source
G: Gate
D: Drain

EXPLODED VIEWS

Cabinet

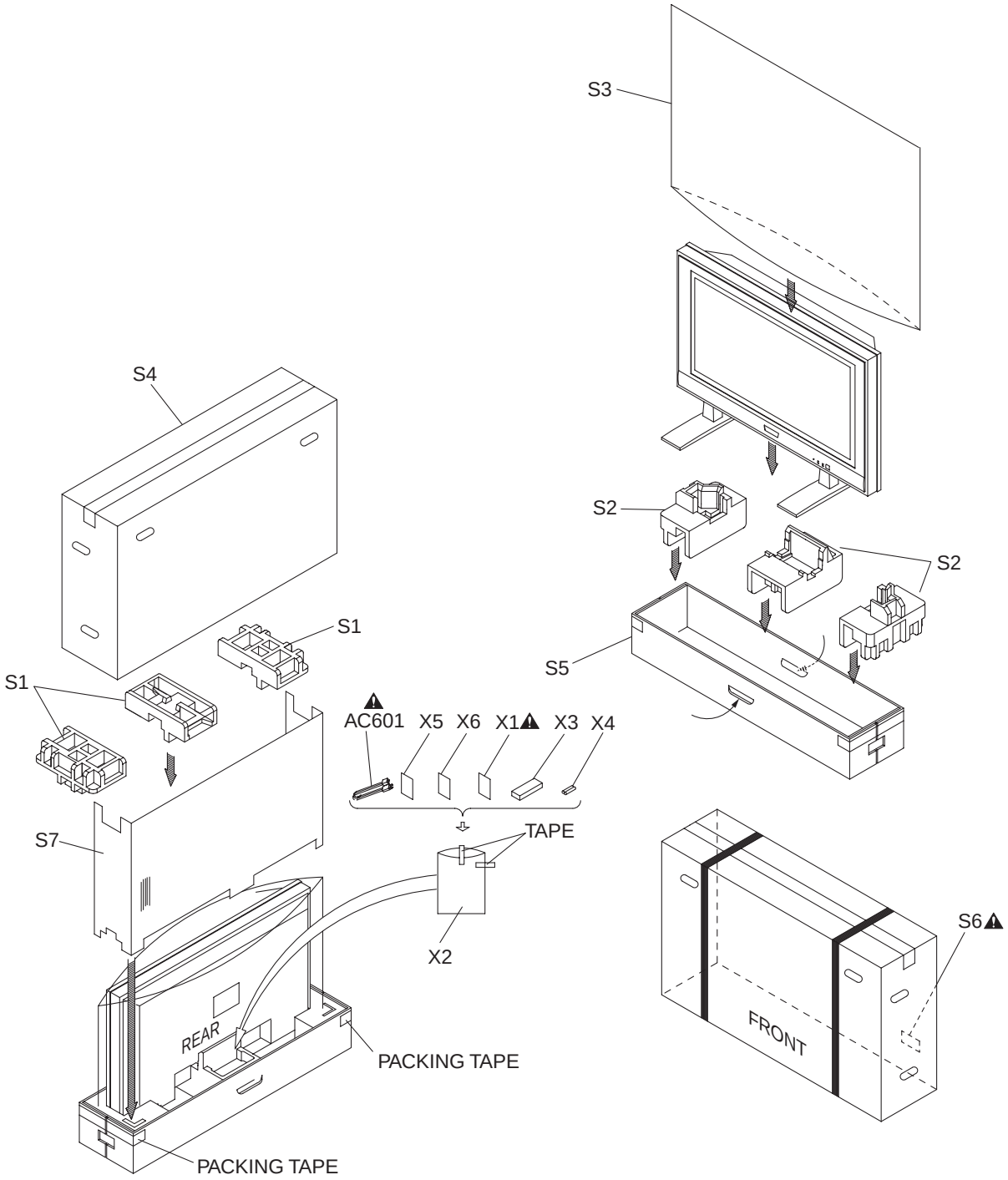


1-14-1

1-14-2

L0604CEX

Packing


S3
S4
S2
S2
S1
S5
S1
AC601
X5
X6
X1
X3
X4
TAPE
S7
X2
S6
REAR
FRONT
PACKING TAPE
PACKING TAPE

MECHANICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

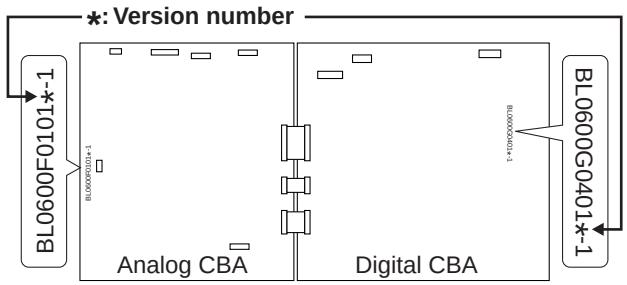
NOTE:
Parts that are not assigned part numbers (---------) are not available.

Ref. No.	Description	Part No.
A1	STAND COVER L0600UA	0EM000953
A2	STAND L0600UA	0EM201832
A3	STAND BASE L0600UA	0EM201865
A4	RUBBER FOOT L0600UA	0EM408992
A5	JACK COVER L0600UA	0EM000911
A6⚠	JACK LABEL(R) L0600UA	---------
A7⚠	JACK LABEL(L) L0600UA	---------
A8⚠	RATING LABEL L0604UE	---------
A9	FRONT CABINET L0600UA	0EM000905
A10⚠	DECORATION PANEL L0601UB	1EM020015
A11	SENSOR/LED LENS L0600UA	0EM408988
A12	BRAND BADGE L0600UA	0EM409093
A13	REAR CABINET L0600UA	0EM000907
A14	REAR COVER L0600UA	0EM408989
A15	AC CORD LABEL L0600UA	---------
A16	JACK HOLDER L0600UA	0EM201861
A28	FUNCTION KNOB L0600UA	0EM101454
A29	CONTROL PLATE L0600UA	0EM302072
AC601⚠	AC CORD VM0289S-VM0266S 2M	WBC0202H0001
B1	SHIELD BOX L0600UA	0EM201834
B3	EARTH LABEL L0600UA	---------
B4	PANEL HOLDER(U) L0600UA	0EM000908
B5	PANEL HOLDER(L) L0600UA	0EM000909
B6	FILTER HOLDER(L) L0600UA	0EM101455
B7	FILTER HOLDER(S) L0600UA	0EM101456
B8	PANEL HOLDER(S) L0600UA	0EM101463
B9	LOCATEDBLOCK L0600UA	0EM408991
B10	SPEAKER HOLDER L0600UA	0EM201831
B11	SPEAKER COVER L0600UA	1EM220002
B12	PCB HOLDER L0600UA	0EM000912
B13	PCB SHIELD PLATE L0600UA	0EM101457
B14	CHASSIS BRACKET L0600UA	0EM000913
B15	PANEL SPACER L0600UA	0EM201835
B16	JACK BRACKET L0600UA	0EM302116
B17	GASKET-B L0600UA	0EM409061
B18	GASKET-A L0600UA	0EM409060
B19	INLET HOLDER L0600UA	1EM320001
CLN1	WIRE ASSEMBLY (LVDS) WX1L0600-001	WX1L0600-001
CLN2	WIRE ASSEMBLY 6P WX1L0600-002	WX1L0600-002
CLN3	WIRE ASSEMBLY 7P WX1L0600-003	WX1L0600-003
CLN4	WIRE ASSEMBLY 8P WX1L0600-004	WX1L0600-004
CLN5	WIRE ASSEMBLY 9P WX1L0600-005	WX1L0600-005
CLN6	WIRE ASSEMBLY 11P WX1L0600-006	WX1L0600-006
CLN7	WIRE ASSEMBLY 7P WX1L0600-007	WX1L0600-007
CLN801	WIRE ASSEMBLY 2P 450MM WX1L0600-008	WX1L0600-008
CLN802	WIRE ASSEMBLY 2P 1000MM WX1L0600-009	WX1L0600-009
FC1	FERRITE CORE RFC-H13 or	XL06041WD001
	FERRITE CORE RFC-H13 BK	XL06041WD002
FC2	FERRITE CORE RFC-H13 or	XL06041WD001
	FERRITE CORE RFC-H13 BK	XL06041WD002
FL501	OPTICAL FILTER PM007Z003	XA00000SM001
L1	P-TIGHT SCREW 3X8 BIND +	GBMP3080
L2	SCREW, B-TIGHT M3X6 BIND HEAD+	GBMB3060
L3	DOUBLE SEMS SCREW M4X25 PAN HEAD+	0EM409073
L4	SCREW, B-TIGHT M3X8 BIND HEAD+	GBMB3080
L5	DOUBLE SEMS SCREW M4X8 PAN HEAD+	0EM409074
L6	SCREW, P-TIGHT 4X18 BIND HEAD +	GBMP4180
L7	SCREW, P-TIGHT 3X12 BIND HEAD+ BLK	GBKP3120
L8	DOUBLE SEMS SCREW M3X8 PAN HEAD+	0EM409075
L9	SCREW ASSEMBLED M3X6 BLACK	0EM409078
L10	DOUBLE SEMS SCREW 5X16 PA5X16 PAN HEAD+	0EM409236
L11	SCREW, P-TIGHT 4X12 BIND HEAD+	GBMP4120
L12	DOUBLE SEMS SCREW M5X20 PAN HEAD+	0EM409077
L13	EARTH SEMS SCREW M4X8 TOOTHED	1EM420012
L14	DOUBLE SEMS SCREW M4X12 PAN HEAD+	1EM420188
PDM501 ⚠	PLASMA DISPLAY MODULE S42SD-YD05 or	UDPUPLSSM001
⚠	PDP SERVICE ASSEMBLY L0600UA	1ESA10366
SP801	SPEAKER S0407F08A	DSD0807XQ003
SP802	SPEAKER S0407F08A	DSD0807XQ003
S1	STYRFOAM TOP L0600UA	0EM000924
S2	STYRFOAM B0TTOM L0600UA	0EM000927
S3	SET BAG(L) L0600UA	0EM302075
S4	CARTON(U) L0601UB	1EM320067
S5	CARTON(L) L0600UA	0EM302093
S6⚠	SERIAL NO. LABEL L0604UE	---------
S7	HOLD PAD L0600UA	0EM409104
X1⚠	OWNER'S MANUAL ENGLISH/SPANISHI	1EMN20168
X2	BAG POLYETHYLENE 235X365XT0.03	0EM408420
X3	REMOTE CONTROL NE801UD	NE801UD
X4	DRY BATTERY R6P/2S or	XB0M451T0001
	DRY BATTERY(SUNRISE) R6SSE/2S or	XB0M451MS002
	DRY BATTERY R6P(AR)2PX or	XB0M451HU002
	DRY BATTERY R6P(AR)2P X ICI	XB0M451HU003
X5	EASY SET UP GUIDE L0601UB	1EMN20118
X6	RETURN STOP SHEET L0605UF	1EM420403

ELECTRICAL PARTS LIST

NOTE:

The DIGITAL CBA and ANALOG CBA must be the same version. When both CBAs version are different, malfunction may occur. When replacing either DIGITAL CBA or ANALOG CBA, confirm the received CBA version. Refer to below.



If the received CBA version is not same with another CBA version, another CBA must be replaced.

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

1. Parts that are not assigned part numbers (---------) are not available.
2. Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25%	D.....±0.5%	F.....±1%
G.....±2%	J.....±5%	K.....±10%
M.....±20%	N.....±30%	Z.....+80/-20%

DIGITAL CBA ASSEMBLY

Ref. No.	Description	Part No.
	DIGITAL CBA ASSEMBLY Consists of the following:	0ESA05882
	DIGITAL CBA	---------
	SWITCH CBA	---------

DIGITAL CBA

Ref. No.	Description	Part No.
	DIGITAL CBA	---------

SWITCH CBA
(Each parts on this CBA can be supplied.)

Ref. No.	Description	Part No.
	SWITCH CBA Consists of the following	----------
	CAPACITORS	
C1901	CHIP CERAMIC CAP.(1608) B K 1000PF/50V	CHD1JK30B102
C1904	CHIP ELECTROLYTIC CAP. 47µF/6.3V M or	CA0K470SP012
	CHIP ELECTROLYTIC CAP. 47µF/6.3V M(WX)	CE0KMR1CL470
C1906	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C1907	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C1908	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
	CONNECTORS	
CN1901	PH CONNECTOR, SIDE 6P S6B-PH-K-S	J3PHC06JG004
CN1902	PH CONNECTOR, SIDE 9P S9B-PH-K-S	J3PHC09JG004
	DIODES	
D1901	LED 333GT/E	NPHZ00333GTE
D1902	LED 333HT/E-K or	NPHK00333HTE
	LED 333HT/E-L or	NPHL00333HTE
	LED 333HT/E-M or	NPHM00333HTE
	LED L-53HT	NP4Z000L53HT
	RESISTORS	
R1902	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1926	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1905	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R1907	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1908	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1909	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1910	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1911	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1912	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R1913	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
	SWITCHES	
SW1901	TACT SWITCH SKHHLPA010	SST0101AL056
SW1902	TACT SWITCH SKHHLPA010	SST0101AL056
SW1903	TACT SWITCH SKHHLPA010	SST0101AL056
SW1908	TACT SWITCH SKHHLPA010	SST0101AL056
	MISCELLANEOUS	
RV1901	PHOTO LINK MODULE RPM7237-H9	USESJRSRM006

ANALOG CBA ASSEMBLY

Ref. No.	Description	Part No.
	ANALOG CBA ASSEMBLY Consists of the following:	0ESA05879
	ANALOG CBA	----------
	JACK CBA	----------

ANALOG CBA

Ref. No.	Description	Part No.
	ANALOG CBA Consists of the following	----------
	CAPACITORS	
C201	CERAMIC CAP.(AX) F Z 0.1µF/50V	CA1J104TU014
C202	CERAMIC CAP.(AX) F Z 0.1µF/50V	CA1J104TU014
C203	ELECTROLYTIC CAP. 22µF/10V M or	CE1AMASTL220
	ELECTROLYTIC CAP. 22µF/10V M	CE1AMASDL220
C206	CERAMIC CAP.(AX) F Z 0.1µF/50V	CA1J104TU014
C207	ELECTROLYTIC CAP. 22µF/10V M or	CE1AMASTL220
	ELECTROLYTIC CAP. 22µF/10V M	CE1AMASDL220
C208	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL010
C209	ELECTROLYTIC CAP. 22µF/10V M or	CE1AMASTL220
	ELECTROLYTIC CAP. 22µF/10V M	CE1AMASDL220
C210	CERAMIC CAP.(AX) F Z 0.1µF/50V	CA1J104TU014
C213	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C215	CERAMIC CAP.(AX) CH J 10PF/50V	CCA1JJTCH100
C216	CERAMIC CAP.(AX) CH J 10PF/50V	CCA1JJTCH100
C291	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASTL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASDL100
C501	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C503	ELECTROLYTIC CAP. 220µF/10V M or	CE1AMASTL221
	ELECTROLYTIC CAP. 220µF/10V M	CE1AMASDL221
C507	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C508	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C509	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C510	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C511	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C513	ELECTROLYTIC CAP. 100µF/25V M or	CE1EMASTL101
	ELECTROLYTIC CAP. 100µF/25V M	CE1EMASDL101
C701	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASTL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASDL470
C702	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C703	CERAMIC CAP(AX) CH J 33PF/50V	CA1J330TU008
C704	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C705	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C706	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C707	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C708	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASTL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASDL470
C709	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C710	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C711	CERAMIC CAP(AX) CH J 33PF/50V	CA1J330TU008
C712	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C713	ELECTROLYTIC CAP. 0.47µF/50V M or	CE1JMASTLR47
	ELECTROLYTIC CAP. 0.47µF/50V M	CE1JMASDLR47
C714	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C715	ELECTROLYTIC CAP. 0.47µF/50V M or	CE1JMASTLR47
	ELECTROLYTIC CAP. 0.47µF/50V M	CE1JMASDLR47
C716	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASTL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASDL470
C717	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C718	CERAMIC CAP(AX) CH J 33PF/50V	CA1J330TU008
C719	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C720	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C721	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C722	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C723	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASTL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASDL470
C724	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C725	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASTL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C726	CERAMIC CAP(AX) CH J 33PF/50V	CA1J330TU008
C727	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C728	ELECTROLYTIC CAP. 0.47µF/50V M or	CE1JMASTLR47
	ELECTROLYTIC CAP. 0.47µF/50V M	CE1JMASDLR47
C729	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C730	ELECTROLYTIC CAP. 0.47µF/50V M or	CE1JMASTLR47
	ELECTROLYTIC CAP. 0.47µF/50V M	CE1JMASDLR47
C731	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL010
C732	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL010
C733	ELECTROLYTIC CAP. 0.1µF/50V M or	CE1JMASTLR10
	ELECTROLYTIC CAP. 0.1µF/50V M or	CE1JMASDLR10
	ELECTROLYTIC CAP. 0.1µF/50V M	CE1JMASDL0R1
C734	ELECTROLYTIC CAP. 0.1µF/50V M or	CE1JMASTLR10
	ELECTROLYTIC CAP. 0.1µF/50V M or	CE1JMASDLR10
	ELECTROLYTIC CAP. 0.1µF/50V M	CE1JMASDL0R1
C801	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL010
C802	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL010
C803	ELECTROLYTIC CAP. 100µF/25V M or	CE1EMASTL101
	ELECTROLYTIC CAP. 100µF/25V M	CE1EMASDL101
C806	ELECTROLYTIC CAP. 1000µF/25V M or	CE1EMZNTL102
	ELECTROLYTIC CAP. 1000µF/25V M or	CE1EMZPDL102
	ELECTROLYTIC CAP. 1000µF/25V M	CE1EMZADL102
C807	ELECTROLYTIC CAP. 100µF/25V M or	CE1EMASTL101
	ELECTROLYTIC CAP. 100µF/25V M	CE1EMASDL101
C808	ELECTROLYTIC CAP. 470µF/25V M or	CE1EMASTL471
	ELECTROLYTIC CAP. 470µF/25V M	CE1EMASDL471
C809	ELECTROLYTIC CAP. 470µF/25V M or	CE1EMASTL471
	ELECTROLYTIC CAP. 470µF/25V M	CE1EMASDL471
C810	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J	CA1J104MS029
C811	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J	CA1J104MS029
C812	ELECTROLYTIC CAP. 3.3µF/50V M or	CE1JMASTL3R3
	ELECTROLYTIC CAP. 3.3µF/50V M	CE1JMASDL3R3

Ref. No.	Description	Part No.
	CONNECTORS	
CN201	TWG CONNECTOR 09P TWG-P09P-A1	J3TWA09TG001
CN203	TWG CONNECTOR 23P TWG-P23P-A1	J3TWA23TG001
CN204	PH CONNECTOR, TOP 6P B6B-PH-K-S	J3PHC06JG001
CN501	CONNECTOR BASE, TOP 11P B11B-PH-K-S	J3PHC11JG001
CN502	PH CONNECTOR, TOP 7P B7B-PH-K-S	J3PHC07JG001
CN701	TWG CONNECTOR 15P TWG-P15P-A1	J3TWA15TG001
CN702	STRAIGHT CONNECTOR BASE 00 8283 0812 00 000 or	J383C08UG002
	STRAIGHT PIN HEADER, 8P 173981-8	1770264
CN801	CONNECTOR BASE, 2P(EH) B2B-EH-A	J3EHC02JG001
CN802	CONNECTOR BASE, 2P(EH) B2B-EH-A	J3EHC02JG001
	DIODES	
D202	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148	NDTZ001N4148
D501	ZENER DIODE MTZJT-775.6B or	QDTB0MTZJ5R6
	ZENER DIODE DZ-5.6BSBT265	NDTB0DZ5R6BS
D503	ZENER DIODE MTZJT-773.9B or	QDTB0MTZJ3R9
	ZENER DIODE DZ-3.9BSBT265	NDTB0DZ3R9BS
D802	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148	NDTZ001N4148
D803	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148	NDTZ001N4148
	ICs	
IC201	IC:MEMORY S524C20D21 or	NSZBA0SSM028
	IC:MEMORY BR24C02F-W or	QSMBA0SRM003
	IC:MEMORY BR24C02F or	QSMMA0SRM003
	IC:EEPROM CAT24WC02JI or	NSZBA0SBG001
	IC(EEP-ROM) M24C02-WMN6	NSZAA0SSS004
IC202	IC:ANALOG MULTIPLEXER CD4051BNSR	NSZBA0TTY157
IC203	IC:ANALOG MULTIPLEXER CD4051BNSR	NSZBA0TTY157
IC204	IC PST600L	QSBLA0TMM018
IC205	PDP MICOM M38034M4H-092KP or	QSZAA0RHT029
	PDP MICOM M38034M4H-159KP	QSZAB0RHT029
IC801	AUDIO POWER IC AN17805A	QSZBA0SMS007
	TRANSISTORS	
Q203	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q204	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q205	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q206	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q207	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q271	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1015-GR(TPE2)	QQS102SA1015
Q272	TRANSISTOR 2SA1175(F) or	QQSF02SA1175

Ref. No.	Description	Part No.
	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1015-GR(TPE2)	QQS102SA1015
Q501	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q503	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q701	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q702	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q703	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q704	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q705	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q706	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q707	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q708	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q709	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1015-GR(TPE2)	QQS102SA1015
Q710	RES. BUILT-IN TRANSISTOR BA1F4M-T or	QQSZ00BA1F4M
	RES. BUILT-IN TRANSISTOR KRC103M	NQSZ0KRC103M
Q711	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q712	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q801	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198(GR) or	NQS40KTC3198
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815

Ref. No.	Description	Part No.
	RESISTORS	
R201	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R202	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R203	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R204	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R207	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R208	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R209	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R210	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R213	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R214	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R215	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R216	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R217	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R218	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R219	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R220	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R221	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R222	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R223	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R224	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R225	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R226	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R227	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R228	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R229	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R230	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R231	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R232	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R233	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R234	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R235	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R236	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R237	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R238	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R239	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R240	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R241	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R242	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R243	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R244	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R245	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R246	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R247	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R248	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R249	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R251	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R252	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R253	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R254	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R255	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R256	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R257	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R258	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R259	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R260	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R261	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R262	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R263	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R264	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472

Ref. No.	Description	Part No.
R265	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R271	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R272	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R273	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R274	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R275	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R276	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R277	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R278	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R291	PCB JUMPER D0.6-P5.0	JW5.0T
R292	CARBON RES. 1/4W J 1M Ω	RCX4JATZ0105
R501	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R502	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R503	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R506	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R507	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R701	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R702	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R703	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R705	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R706	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R707	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R708	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R709	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R710	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R711	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R713	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R714	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R715	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R716	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R717	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R718	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R719	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R721	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R722	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R723	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R724	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R725	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R726	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R727	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R728	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R729	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R730	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R731	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R732	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R733	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R735	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R736	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R737	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R738	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R739	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R740	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R741	CARBON RES. 1/4W J 680 Ω	RCX4JATZ0681
R743	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R744	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R745	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R746	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R747	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R748	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R749	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R751	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333

Ref. No.	Description	Part No.
R752	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R753	CARBON RES. 1/4W J 390 Ω	RCX4JATZ0391
R754	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R755	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R756	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R757	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R758	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R759	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R760	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R761	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R762	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R763	CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R764	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R765	CARBON RES. 1/4W J 56k Ω	RCX4JATZ0563
R766	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R767	CARBON RES. 1/4W J 56k Ω	RCX4JATZ0563
R768	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R769	CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R770	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R771	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R772	CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R773	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R774	CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R775	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R801	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R802	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R804	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R805	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R809	METAL OXIDE FILM RES. 2W J 0.68 Ω or	RN02R68ZU001
	METAL OXIDE FILM RES. 2W J 0.68 Ω	RN02R68DP004
R810	METAL OXIDE FILM RES. 2W J 0.68 Ω or	RN02R68ZU001
	METAL OXIDE FILM RES. 2W J 0.68 Ω	RN02R68DP004
R811	CARBON RES. 1/4W J 15k Ω	RCX4JATZ0153
R812	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R813	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R814	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R815	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R816	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R817	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
	MISCELLANEOUS	
BC701	PCB JUMPER D0.6-P5.0	JW5.0T
BC702	PCB JUMPER D0.6-P5.0	JW5.0T
BC703	PCB JUMPER D0.6-P5.0	JW5.0T
BC704	PCB JUMPER D0.6-P5.0	JW5.0T
JK701	Y/C JACK 1P(SW) YKF51-5586	JYEL040JC001
JK702	RCA JACK YKC21-4616N	JYRL030JC008
JK703	RCA JACK(WHITE/RED) YKC21-4042N	JXRL020JC024
JS201	PCB JUMPER D0.6-P5.0	JW5.0T
JS801	PCB JUMPER D0.6-P5.0	JW5.0T
JS802	PCB JUMPER D0.6-P5.0	JW5.0T
PB1	HEAT SINK (PJH) ASSEMBLY L0600UA	0EM409007
X201	X'TAL AT-49 8.400MHz	FXE845LDS001

JACK CBA

Ref. No.	Description	Part No.
	JACK CBA Consists of the following	----------
	CONNECTORS	
CN751	CONNECTOR BASE RIGHT ANGLE or	J383C08UG001
	ANGLE PIN HEADER, 8P 173979-8	1770253
	MISCELLANEOUS	
BC751	PCB JUMPER D0.6-P5.0	JW5.0T
JK751	Y/C JACK YKF51-5558N	JYEJ040JC001
JK752	RCA JACK AV1-06-001 YELLOW	JXRJ010RP005
JK753	RCA JACK AV1-06-002 WHITE	JXRJ010RP006
JK754	RCA JACK AV1-06-003 RED	JYRJ010RP001

FILTER CBA

Ref. No.	Description	Part No.
	FILTER CBA Consists of the following	1ESA10031
	CAPACITORS	
C601⚠	METALLIZED FILM CAP. 1µF/275V K or	CT2E105HJE08
⚠	LINE ACROSS CAP. 1U/275V	CT2E105DC016
C602	METALLIZED FILM CAP. 1µF/275V K or	CT2E105HJE08
	LINE ACROSS CAP. 1U/275V	CT2E105DC016
C603⚠	METALLIZED FILM CAP 0.22µF/275V K or	CT2E224HJE07
⚠	LINE ACROSS CAP 0.22µF/275V	CT2E224DC016
C641⚠	SAFTY CAP. 1000PF/250V or	CCN2EMA0E102
⚠	SAFETY CAP. 1000PF/250V KX	CA2E102MR050
C642⚠	SAFTY CAP. 1000PF/250V or	CCN2EMA0E102
⚠	SAFETY CAP. 1000PF/250V KX	CA2E102MR050
	CONNECTORS	
CN601	WIRE ASSEMBLY 2P WX1L0600-010	WX1L0600-010
CN602	WIRE ASSEMBLY 1P WX1L0600-011	WX1L0600-011
	COILS	
L601⚠	FILTER LLBG00ZY2015 or	LLBG00ZY2015
⚠	TOROID COILS RBPF-865661	LLBG00ZKV015
L602⚠	FILTER LLBG00ZY2015 or	LLBG00ZY2015
⚠	TOROID COILS RBPF-865661	LLBG00ZKV015
L603⚠	FILTER LLBG00ZY2015 or	LLBG00ZY2015
⚠	TOROID COILS RBPF-865661	LLBG00ZKV015
L604⚠	FILTER LLBG00ZY2015 or	LLBG00ZY2015
⚠	TOROID COILS RBPF-865661	LLBG00ZKV015
	RESISTOR	
R601⚠	SOLID RES.(UL) 1/2W 3.3M Ω	RSX2335KE010
	MISCELLANEOUS	
F601⚠	FUSE 8A/250V	PAGF20BAG802
FH601	FUSE HOLDER MSF-015	XH01Z00LY001
FH602	FUSE HOLDER MSF-015	XH01Z00LY001
GP641⚠	GAP. FNR-G3.10D	FAZ000LD6005
J607	PCB JUMPER D0.6-P5.0	JW5.0T
JK601⚠	AC INLET SS-7B-1-09A	JTDC0P0RFE03
SA601⚠	SURGE ABSORBER JVR-07N471K or	NVQZVR07N471
⚠	SURGE ABSORBER CNR-10D471K or	NVQZR10D471K
⚠	SURGE ABSORBER CNR-07D471K or	NVQZR07D471K
⚠	SURGE ABSORBER PVR-07D471KB	NVQZ07D471KB

PLASMA DISPLAY MODULE SECTION

PLASMA DISPLAY

6842PE
("A" version)

Plasma Display Module Section
- **Disassembly Procedures**
- **Troubleshooting**
- **Exploded Views**
- **Parts List**

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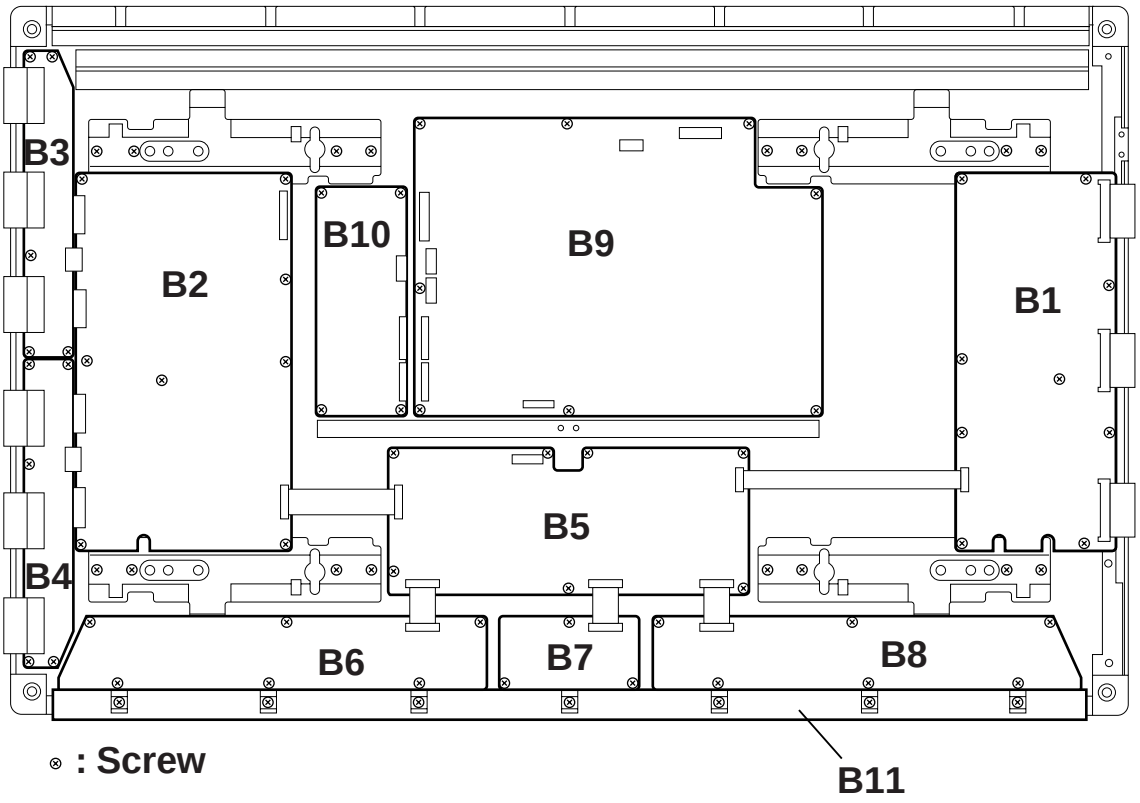
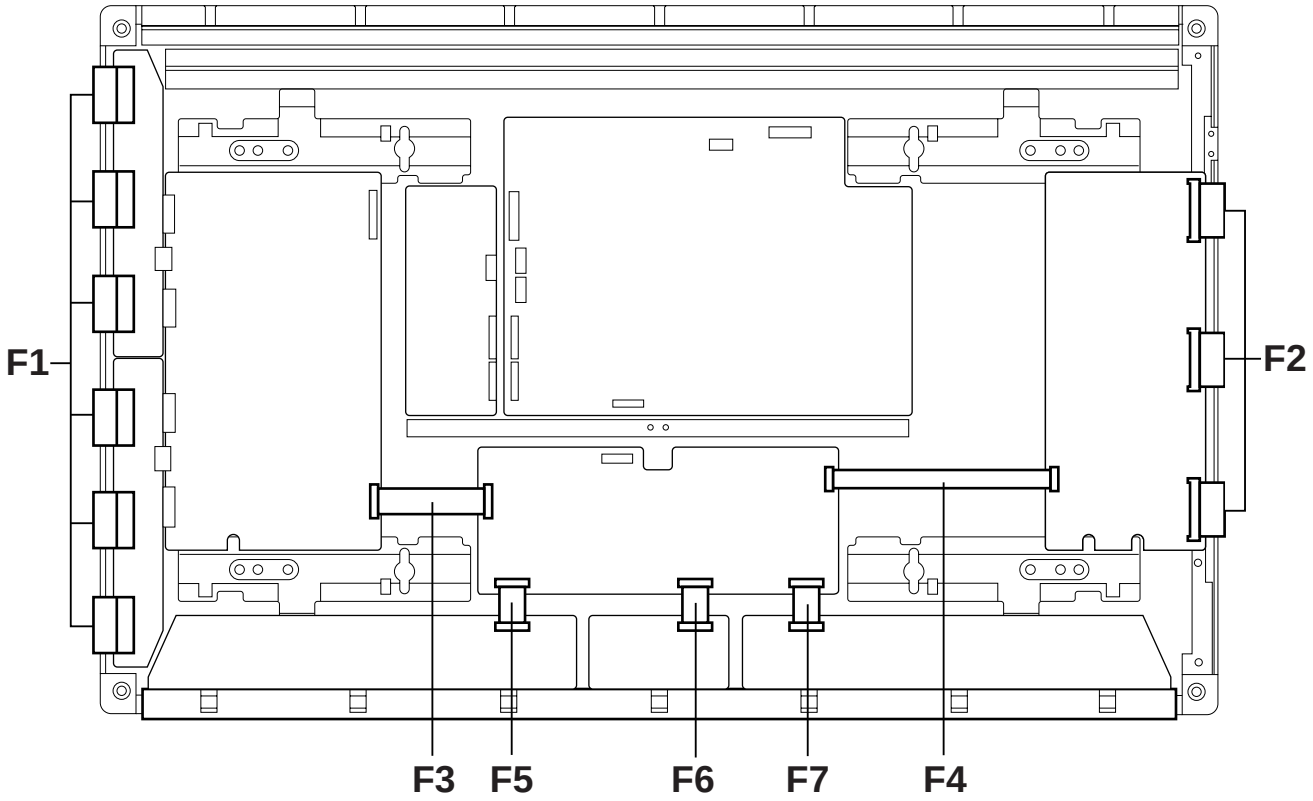
DISASSEMBLY INSTRUCTIONS

1. Board and Heat Dispersion Bar Layout, and Positions of Screw Mount



No.	Name of Board	Abb.	No. of Screw
B1	X-Main Unit	XM	8
B2	Y-Main Unit	YM	7
B3	Y-Buffer (upper) Unit	YBU	5
B4	Y-Buffer (lower) Unit	YBL	5
B5	Logic Main Unit	LM	7
B6	Logic E Buffer Unit	LBE	6
B7	Logic F Buffer Unit	LBF	3
B8	Logic G Buffer Unit	LBG	6
B9	SMPS Unit	MPSU	8
B10	Video SMPS Unit	SPSU	4
B11	Heat Dispersion Bar	---	7

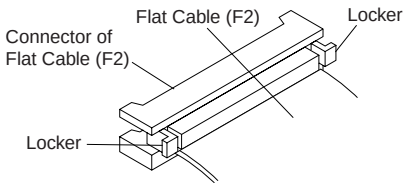
2. Signal Connectors of Boards



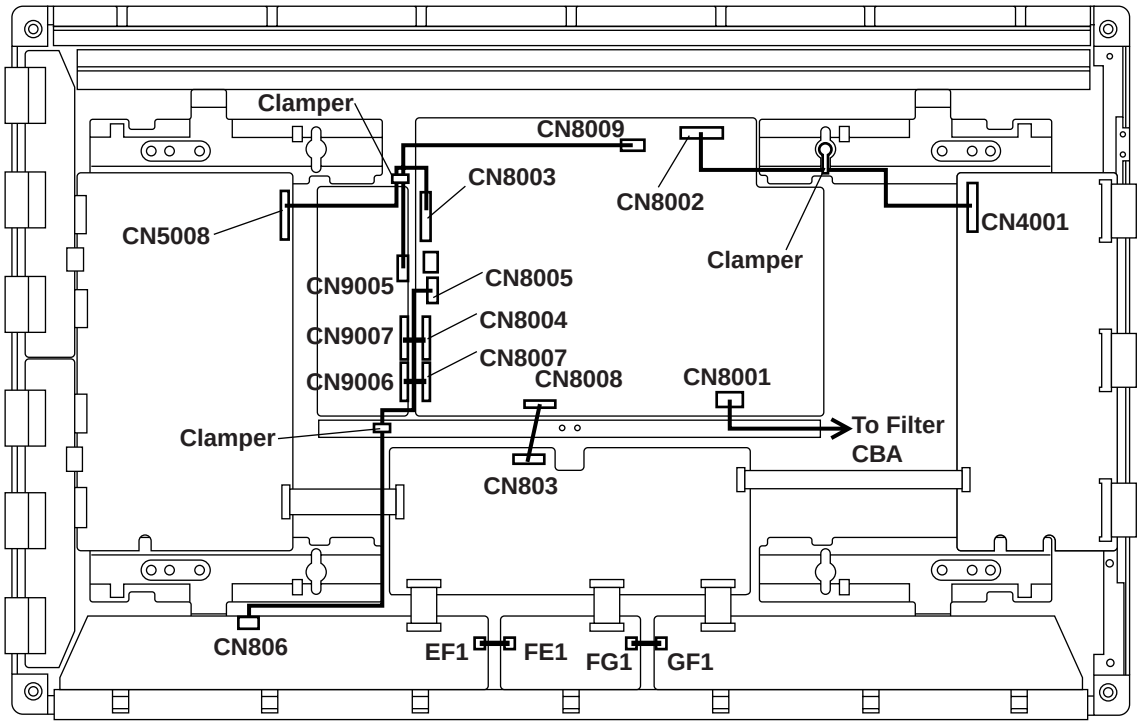
No.	Name of Cable	Connection	Disconnecting Note	Connecting Note
F1	FPC (Flexible Printed Circuit)	Panel -YBU, L	1	2
F2	Flat Cable	Panel - XM	3	4
F3	FFC (Flexible Flat Cable)	LM-YM	-	-
F4	FFC (Flexible Flat Cable)	LM-XM	-	-
F5	FFC (Flexible Flat Cable)	LM-LBE	-	-
F6	FFC (Flexible Flat Cable)	LM-LBF	-	-
F7	FFC (Flexible Flat Cable)	LM-LBG	-	-

NOTES:

1. Pull out with two hands from both sides of plastic plate.
2. Push with same pressure at both sides until completely inserted.
   Caution: Please be cautious that the pins of connector of FPC do not bend by miss-aligning of male and female connectors.
3. Perform the following procedures for disconnection.
   a) Pull out the locker of connector as shown right.
   b) Push down the Flat Cable slightly and take back the Flat Cable (F2).
4. Perform the following procedures for connection.
   a) Push down the Flat Cable slightly and insert to the slot of connector.
   b) Lock the locker until a “tick” sounds.



3. Power Cable Connectors



4. CAUTIONS:

1. The PDP module uses high voltage which is dangerous to the human body. It is required for the service technician to check if any foreign material is inside which causes electrical short before power on. It is also required for the service technician not to touch the electrical devices while power is alive.
2. The PDP module is sensitive to electrically conductive dust and moisture. Therefore, the disassembly and re-assembly work to repair, adjust or replace part(s) should be always done in a clean environment.
3. The PDP module includes many electrical devices. The service technician should wear any kind of anti-static mean (e.g. earth ring) to prevent from electrical shock to module by electrostatics.
4. The PDP module use fine pitch connectors and flat cables of which terminal must be correctly matched (aligned). If the connector is re-connected after repair work, it should be correctly aligned.
5. The capacitors in the boards remain temporarily charged even after the power is turned off. After turning off the power, you must be sure to wait at least one minute before touching the Module.
6. The capacitors in the PSU (Main and Sub) remain temporarily charged even after the power is turned off. After turning off the power, you must discharge the PSU with dummy discharge resistor.

5. Required Tools and Measuring Devices

(1) Tools

1) (+) type Screw Drivers
2) Air Blower

Name: Ionizing air Gun

Model name: JW-HBA

Purpose of Using tool:

To remove Particle on the Board by Flowing a Air

To prevent Damage of Electronic element by Ionizing Blow

Supplier: Jaewoo new material corp.

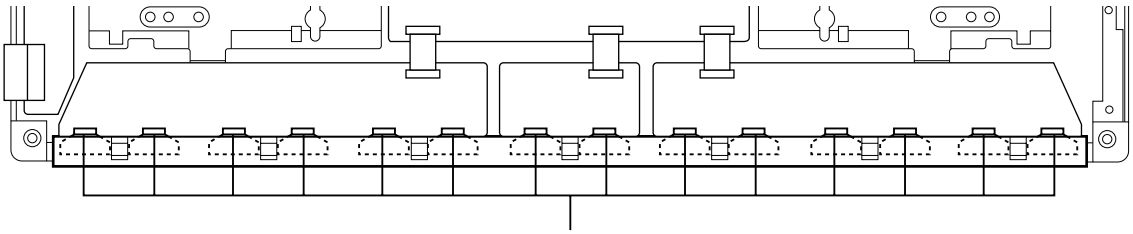
Manufacturer: Simco(Japan)

3) Earth Ring
   Name: Wrist band for preventing Static Electricity
   Model name: KS-1059 (Wire type)
   Length: 2.7 m
   Purpose of Using too:
      Protect Circuit Board Damage Caused by Static Electricity
   Manufacturer: Kostat
4) Small Driver: Small ceramic driver for level (VR) adjust
5) Dummy Discharge Resistor: 2.4kΩ10W

(2) Measuring Devices

1) Oscilloscope: 500MHz sampling
2) Probe: 10:1
3) Digital Multi-meter
4) Signal Generator: LT447/LT448 (Manufacturer: LEADER ELECTRONICS CORP.) or similar one

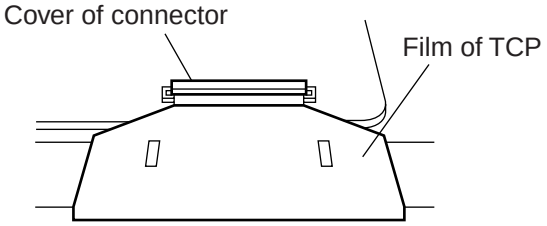
6. How to connect / disconnect the FFC and TCP to connectors



TCP Connection

(1) How to Disconnect TCP

1. Flip over the cover of connector carefully.



2. Take out the film of TCP from the slot carefully.

(2) How to Connect TCP

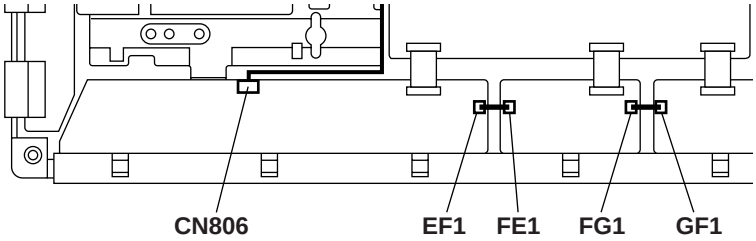
1. Insert TCP film to the slot carefully. Please be sure that the TCP and connector are correctly aligned to each other.
2. Push the cover until “Tick” sounds.

Caution:

1. It is highly recommended to blow out any dust in a connector slot before re-connect a TCP.
2. When you touch the TCP, beware of electrostatic discharge.

(3) How to check Miss-alignment of TCP

1. Disconnect connector (CN806).



2. Check that connector (EF1) and connector (FE1) are connected.
3. Check that connector (FG1) and connector (GF1) are connected.
4. Measure the resistance between pin 1 and pin 5 of CN806.
   - resistance > several kΩ: OK
   - resistance < 20 Ω: at least 1 of TCP is mis-aligned.
5. If mis-aligned, connect TCPs again.

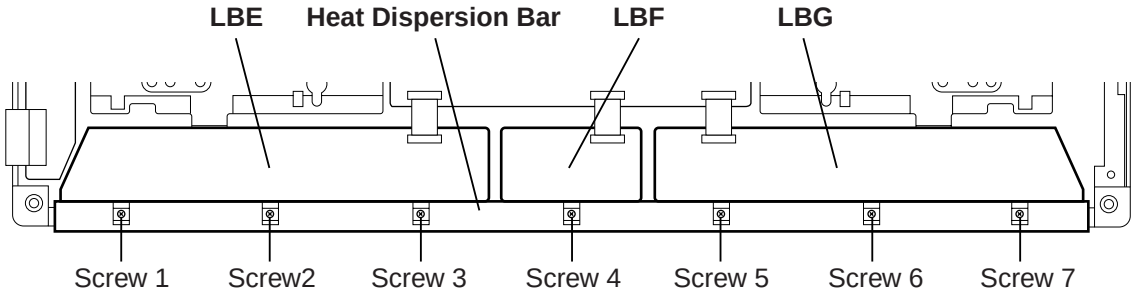
(4) How to Connect / Disconnect FFC

Use the same the method as use for the TCP.

7. Disassembly of Boards

(1) LBE, LBF, and LBG

1. Unscrew all screws of the Heat Dispersion Bar in the order of 2-3-5-6-7-1-4 and remove the Heat Dispersion Bar.



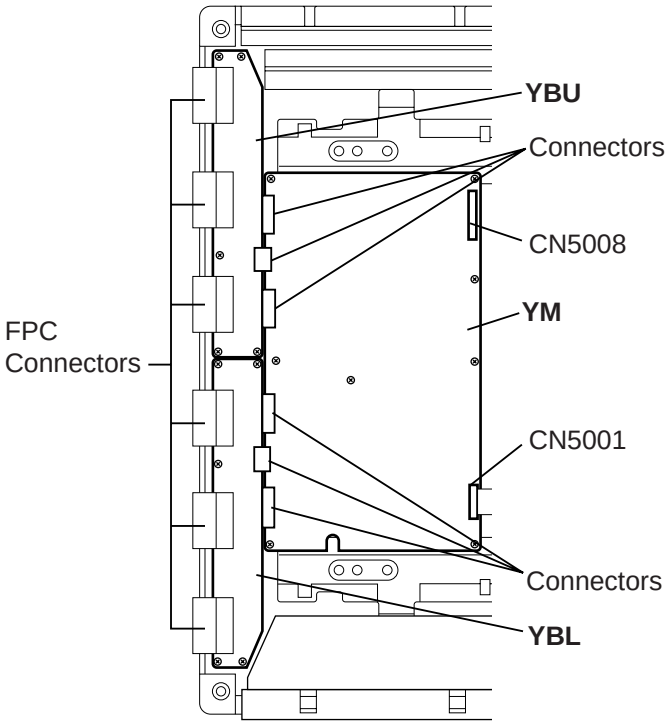
2. Disconnect all TCP, FFC & Power Cable from connectors.
3. Unscrew all screws of defective board(s) and remove LBE, LBF, or LBG.

Reassembly Notes:

1. Before re-installing the defective board(s), blow out any conductive dust from connectors.
2. When re-assembling the Heat Dispersion Bar, screw 1st time gently in the order of 4-1-7-6-5-3-2, and at 2nd time tighten the screws as same order. If too much pressure is given, the driver IC on the TCP may be damaged.

(2) YBU, YBL and/or YM

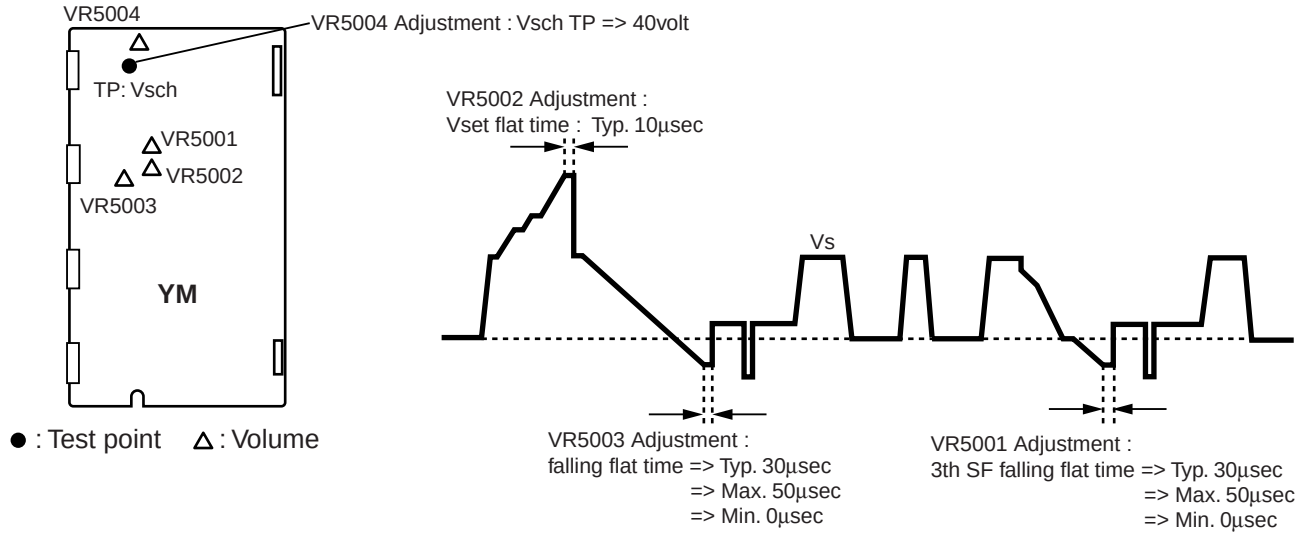
1. Disconnect all FPC connectors of YBU and YBL.
2. Disconnect the connectors of CN5001 and CN5008 on YM.
3. Unscrew all screws of YBU, YBL, and YM.
4. Take out the boards from the chassis.
5. Disconnect the connectors between YBU, YBL and YM.
6. Take out the YBU and YBL from YM.



Reassembly Notes:

1. After re-assembling YBU, YBL and YM, turn on the module and check the waveform for the Driving board. (refer to “How to adjust waveform” below.)
2. If the waveform is adjusted, then turn off the set.

How to adjust waveform



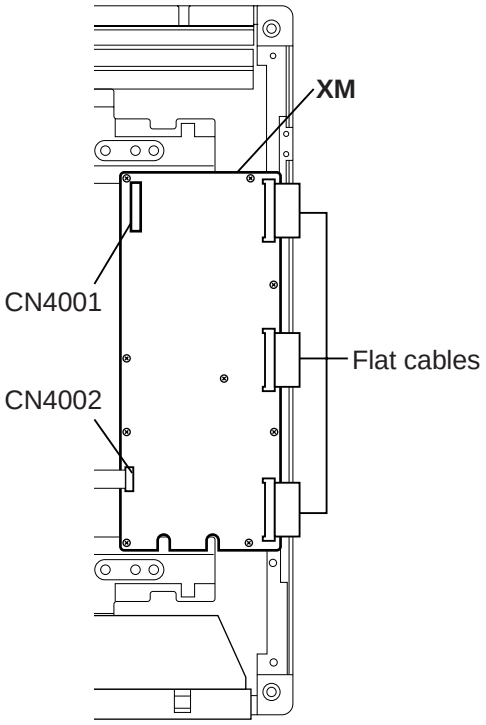
NOTE:
Pay close attention to above adjustment order.

(3) XM

1. Disconnect connectors CN4001 and CN4002.
2. Remove all flat cables.
   Note: Refer to “2. Signal Connectors of Boards” section on page 2-1-2.
3. Unscrew all screws of XM and remove it.

Caution:

1. The connection of FFC connectors must be completely aligned and locked tightly. Miss-alignment of connector and Flat Cable may cause hard fail of module.
2. All connectors should be kept clean with no dust. Any conductive foreign particle may cause hard failure of module. Remove dust by using clean air is highly recommended before connection is made.

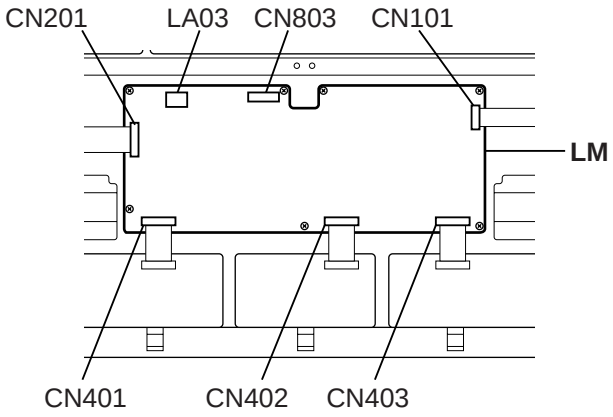


(4) LM

1. Disconnect all connectors of CN101, CN201, CN401, CN402, CN403, CN803, and LA03.
2. Unscrew all screws of LM and remove it.

Caution:

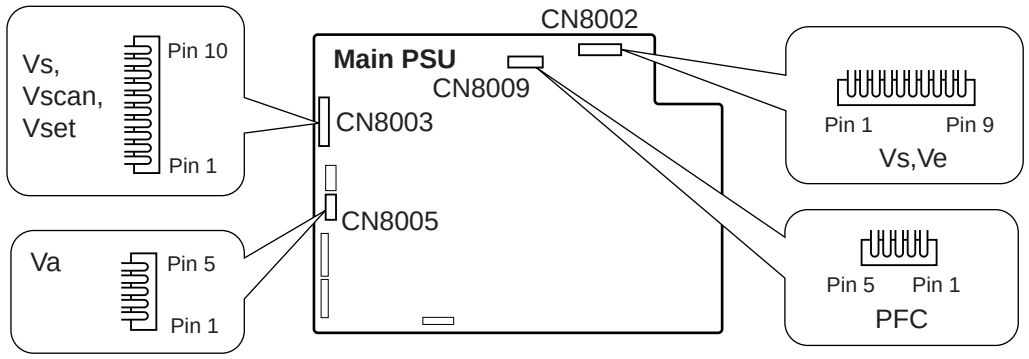
1. The Connection of FFC connectors must be completely aligned and locked tightly. Mis-alignment of connector and Flat Cable may cause hard failure of module.
2. All connectors should be kept clean with no dust. Any conductive foreign particle may cause hard failure of module. Remove dust by using clean air is highly recommended before connection is made.



(5) Main PSU

A. Discharging

1) Points to be discharged



2) Voltage Rating and Discharge Time

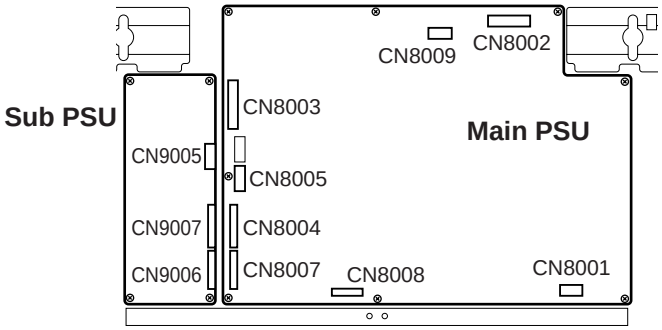
	PFC	Vs	Va	Vset	Vscan	Ve
Voltage (Typical)	400V	175V	70V	173V	-60V	160V
Discharge Time By 2.4kΩ/10W	5sec	5sec	8sec	4sec	15sec	5sec

- The Discharge Time means that the decay time from initial value of voltage to 10Vdc.

3) How to discharge

1. Connect Discharge Resistor(2.4kΩ/10W) between two pins while the Harness is connected.
2. Order of voltages to be discharged: Va → Vs → Vset → Vscan → Ve → PFC
   CN8005
   1-4 pin: Va discharge
   CN8003
   8-10pin: Vs discharge
   5- 6 pin: Vset discharge
   3- 4 pin: Vscan discharge
   CN 8002
   7-9 pin: Vs discharge
   3-5 pin: Ve discharge
   CN 8009
   1-3 pin: PFC discharge
3. It is strongly recommended that the discharge is at least 15 seconds with 2.4kΩ/10W.

B. Disassebmly of Main PSU and Sub PSU



1) Main PSU

1. Discharge all the charges which may remain in capacitors of PSU.
2. Disconnect all connectors between Main PSU and other Board as shown above.
3. Unscrew all screws of Main PSU and remove it.

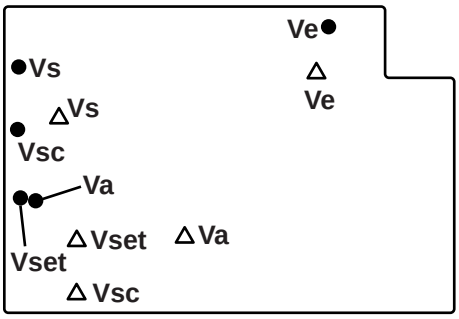
Reassembly Notes:

When re-installing main PSU, perform the following procedures.

1. Screw all screws of Main PSU.
2. Connect Power Input Cable to CN8001.
3. Connect a cable from CN8008 of Main PSU to CN803 of LM.
4. Turn on the power of PSU.
5. Check and adjust each voltages at Test Points. (refer to “How to adjust Voltages of PSU” below)
6. If all voltages are OK, then turn the power off.
7. Connect all connectors between Main PSU and other Boards.

2) How to adjust voltages of PSU

< Positions of Volumes for Voltage Adjustments and Test Point >



1. Measure the voltage at each Test Point.
2. Adjust the level until it reaches same voltage value as written on the VOLTAGE LABEL of PDP Module.

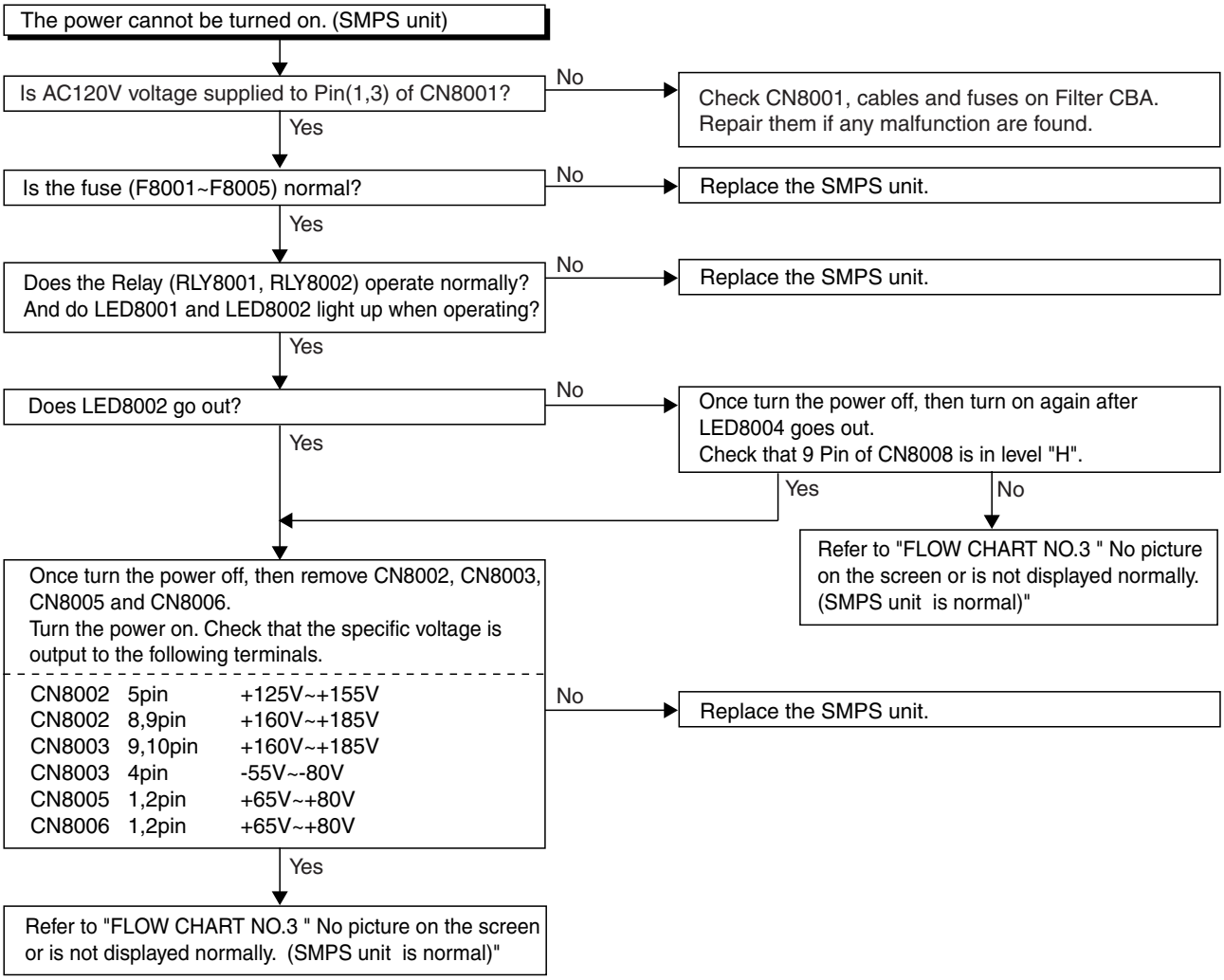
3) Sub PSU

1. Discharge all the charges which may remain in capacitors of PSU.
2. Disconnect all connectors between Sub PSU and other Board.
3. Unscrew all screws of Sub PSU and remove it.

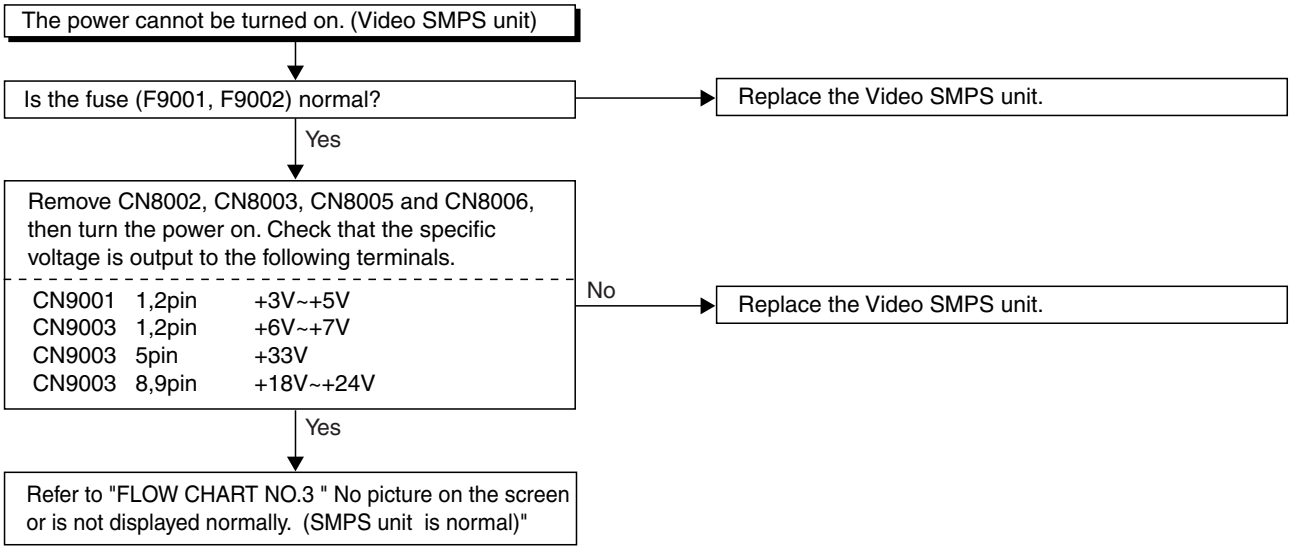
TROUBLESHOOTING

Below are charts for troubleshooting, even under the condition that both the Digital CBA and the Analog CBA are normal, when there is a malfunction in the plasma display module.

FLOW CHART NO.1


The power cannot be turned on. (SMPS unit)
Is AC120V voltage supplied to Pin(1,3) of CN8001?
No
Check CN8001, cables and fuses on Filter CBA. Repair them if any malfunction are found.
Yes
Is the fuse (F8001~F8005) normal?
No
Replace the SMPS unit.
Yes
Does the Relay (RLY8001, RLY8002) operate normally? And do LED8001 and LED8002 light up when operating?
No
Replace the SMPS unit.
Yes
Does LED8002 go out?
No
Once turn the power off, then turn on again after LED8004 goes out. Check that 9 Pin of CN8008 is in level "H".
Yes
No
Refer to "FLOW CHART NO.3 " No picture on the screen or is not displayed normally. (SMPS unit is normal)"
Yes
Once turn the power off, then remove CN8002, CN8003, CN8005 and CN8006. Turn the power on. Check that the specific voltage is output to the following terminals.
CN8002 5pin +125V~+155V
CN8002 8,9pin +160V~+185V
CN8003 9,10pin +160V~+185V
CN8003 4pin -55V~-80V
CN8005 1,2pin +65V~+80V
CN8006 1,2pin +65V~+80V
No
Replace the SMPS unit.
Yes
Refer to "FLOW CHART NO.3 " No picture on the screen or is not displayed normally. (SMPS unit is normal)"

FLOW CHART NO.2


The power cannot be turned on. (Video SMPS unit)
Is the fuse (F9001, F9002) normal?
Replace the Video SMPS unit.
Yes
Remove CN8002, CN8003, CN8005 and CN8006, then turn the power on. Check that the specific voltage is output to the following terminals.
CN9001 1,2pin +3V~+5V
CN9003 1,2pin +6V~+7V
CN9003 5pin +33V
CN9003 8,9pin +18V~+24V
No
Replace the Video SMPS unit.
Yes
Refer to "FLOW CHART NO.3 " No picture on the screen or is not displayed normally. (SMPS unit is normal)"

FLOW CHART NO.3

No picture on the screen or is not displayed normally. (SMPS unit is normal)

Is the fuse (F5001~F5003) normal on the Y-MAIN unit?
- No → Replace the Y-MAIN unit.
- Yes ↓

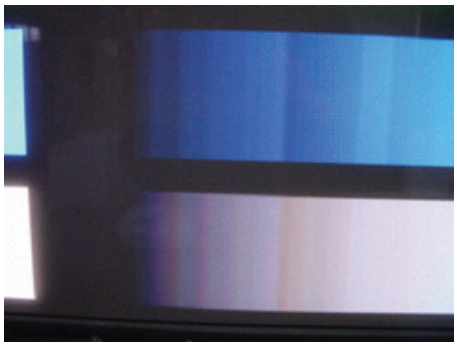
Check that there is no shortcut between source drains of FETs on the Y-MAIN unit.
(Q5009,Q5010,Q5012~Q5015,Q5017~Q5024)
- No → Replace the Y-MAIN unit.
- Yes ↓

Is the fuse (F4001~F4003) normal on the X-MAIN unit?
- No → Replace the X-MAIN unit.
- Yes ↓

Check that there is no shortcut between source drains of FETs on the X-MAIN unit.
(Q4009~Q4016)
- No → Replace the X-MAIN unit.
- Yes ↓

Check that the LED (LED2000) blinks on the LOGIC MAIN unit.
- No → Replace the LOGIC MAIN unit.
- Yes (Picture is displayed.) ↓
- Yes (Picture is not displayed.) → LOGIC MAIN unit is normal. Replace the PLASMA DISPLAY PANEL.

Is the following picture displayed?



- No → LOGIC MAIN unit is normal. Replace the PLASMA DISPLAY PANEL.
- Yes ↓

Replace the LOGIC MAIN unit.

FLOW CHART NO.4

There are lines which are not displayed horizontally.

Replace Y-BUFFER(UPPER) unit or Y-BUFFER(LOWER) unit. Is there the same symptom?

No → There is a malfunction either on Y-BUFFER(UPPER) unit or Y-BUFFER(LOWER) unit.

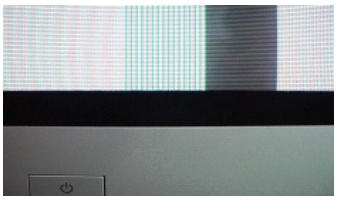
Yes → Replace the PLASMA DISPLAY PANEL.

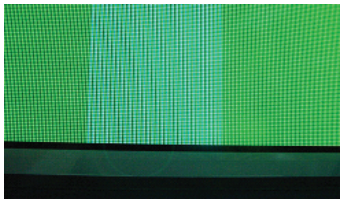
FLOW CHART NO.5

There are lines which are not displayed vertically.

Is the following picture displayed?

No → Is the following picture displayed?



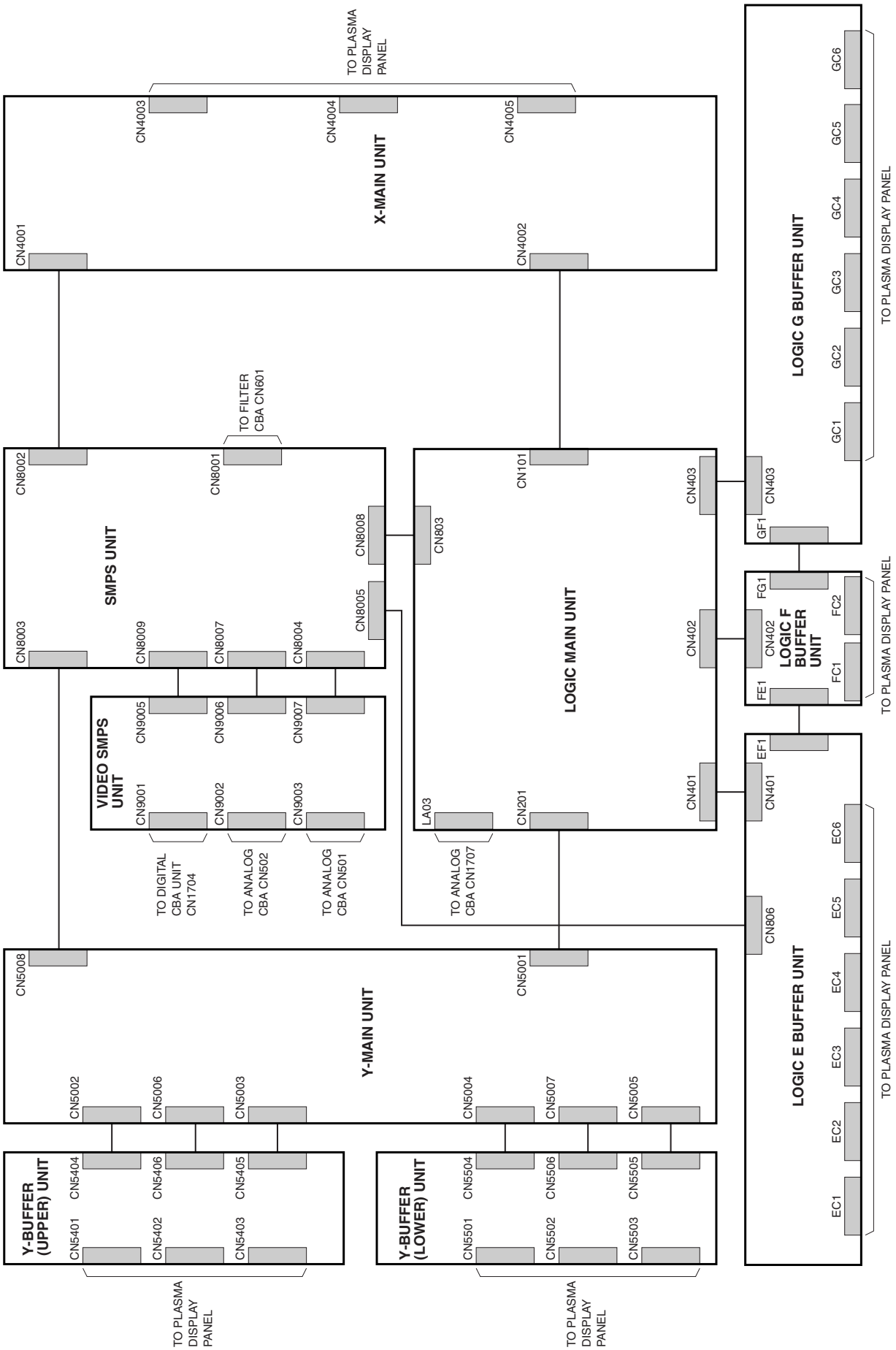


Yes → Replace LOGIC MAIN unit, LOGIC E BUFFER unit, LOGIC F BUFFER unit, or LOGIC G BUFFER unit. Is there the same symptom?

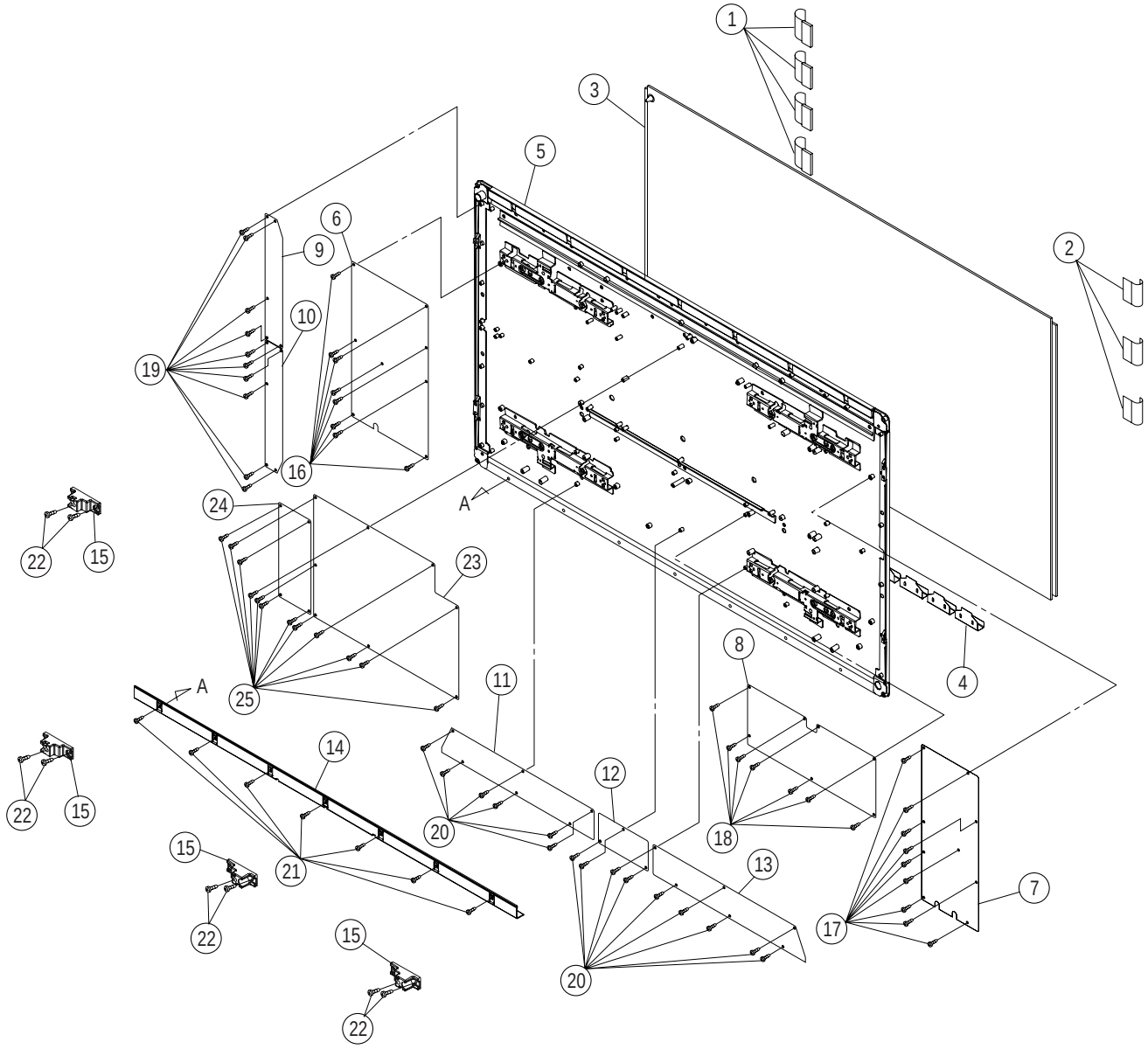
Yes → Replace the PLASMA DISPLAY PANEL.

No → There is malfunction on LOGIC MAIN unit, LOGIC E BUFFER unit, LOGIC F BUFFER unit, or LOGIC G BUFFER unit.

WIRING DIAGRAM



EXPLODED VIEWS OF PDP MODULE



PARTS LIST

NOTE:
Parts that are not assigned part numbers (---------) are not available.

Ref. No.	Desctiption	Part No.
1	Y-FPC	----------
2	X-FPC	----------
3	PANEL	----------
4	TCP Film	----------
5	Assy,Chassis Base	----------
6	Y-Main Unit	1EDM10315
7	X-Main Unit	1EDM10314
8	Logic Main Unit	1EDM10313
9	Y-Buffer (upper) Unit	1EDM10321
10	Y-Buffer (lower) Unit	1EDM10322
11	Logic E Buffer Unit	1EDM10318
12	Logic F Buffer Unit	1EDM10319
13	Logic G Buffer Unit	1EDM10320
14	TCP Cover Plate	----------
15	Spacer Mount	----------
16	Screw	----------
17	Screw	----------
18	Screw	----------
19	Screw	----------
20	Screw	----------
21	Screw	----------
22	Screw	----------
23	SMPS Unit	1EDM10317
24	Video SMPS Unit	1EDM10316
25	Screw	----------